IN THE ARBITRATION UNDER THE ARBITRATION RULES OF THE UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW
AND
THE NORTH AMERICAN FREE TRADE AGREEMENT

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In the Matter of an Arbitration :
Between: :
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CHEMTURA CORPORATION :
(formerly Crompton Corporation), :
:
Claimant/Investor, :
:
and :
:
THE GOVERNMENT OF CANADA, :
:
Respondent/Party. :
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- - - - - - - - - - - - - - - - - - - -x Volume 1

HEARING ON THE MERITS

Wednesday, September 2, 2009

Government Conference Centre
2 Rideau Street
Centennial Conference Room
Ottawa, Ontario

The hearing in the above-entitled matter came on, pursuant to notice, at 9:04 a.m. before:

PROF. GABRIELLE KAUFMANN-KOHLER, Presiding Arbitrator

THE HON. CHARLES N. BROWER, Arbitrator

PROF. JAMES R. CRAWFORD, Arbitrator

Secretary to the Tribunal:

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C O N T E N T S

P R O C E E D I N G S

PRESIDENT KAUFMANN-KOHLER: Good. Are we ready to start? It looks like we are.

Can I ask someone to close the door in the back. Thank you very much.

So, I'm pleased to welcome you all here and open this hearing in this NAFTA arbitration Chemtura, formerly Crompton, versus the Government of Canada.

We thank the Government of Canada for hosting us here and having made the arrangements for this hearing room.

We have in attendance that I'll need to introduce my co-Arbitrators, Judge Brower on my left and Professor Crawford on my right.

We have the Secretary of the Tribunal, Mr. Vinuales, and the Court Reporter, Mr. Kasdan.

Can I turn to Claimant to introduce who is with you, please.

MR. SOMERS: Thank you, Madam Chair. I'm Greg Somers, representing the Claimant, currently Chemtura Corporation, formerly Crompton, formerly Uniroyal.

To my right is Mr. Ben Bedard, to his right, Alison Fitzgerald; to her right, Renée Thériault; and to her right, Heather Cameron, all for the Claimant. Thank you.

PRESIDENT KAUFMANN-KOHLER: Thank you.

Can I then turn to Canada, Mr. Douaire de Bondy.

08:59 MR. DOUAIRE de BONDY: Thank you, Madam Chair. On behalf of the Government of Canada I introduce Sylvia Tabet Director of Investment Services at the Trade Law Bureau; myself, Christoph Douaire de Bondy, Stephen Kurelek, Yasmin Shaker, Carolyn Elliott-Magwood, Mark Luz, Christina Beharry, Jennifer George, and our esteemed assistant, Sarah Basile.

I'd also like to note the presence in the room of Mr. Mark Feldman of the U.S. State Department, and our client representative Mr. John Worgan.

PRESIDENT KAUFMANN-KOHLER: Thank you.

I have seen on the list that there was a representative of Mexico attending. Is this right?

MR. DOUAIRE de BONDY: I had noticed, Madam Chair, that Carlos Pineira and Alejandro Rojas from Mexico's NAFTA office in Ottawa were to attend today. They may be appearing at some later moment.

PRESIDENT KAUFMANN-KOHLER: Fine. We will see later in that case.

And I went around the room to say hello to everyone, and some on this side were not there, so I apologize if I did not greet you personally.

Would you know the schedule, you know, the rules. Let me just repeat briefly what we have agreed on. We will work on the schedule that the Parties have prepared with the few additions that the Tribunal made.

09:01 Today, we will have the Opening Statements, two hours each. We will, of course, start with Chemtura, and you will see when you want to have a break in the middle, a short break, or whether you want to go through two hours, and then late morning we will start with yours and go on after the lunch, and later in the afternoon we will hear Mr. Ingulli; is that right?

Then in general we have agreed on time allocations, 16 hours for the Claimant, 20 for the Respondent, and the Secretary will keep the time, and I will try to remember to give you the time regularly. And if you have questions, you can always, of course, ask the Secretary.

We will have a schedule, daily schedule of 9:00 until approximately 5:30, but, of course, we will need to be flexible, depending on where we stand in an examination. We have a lunch breaks of one hour and then hopefully other breaks as well during the morning and in the afternoon.

You have exchanged, I understand, demonstrative exhibits yesterday for--to be used today, and I see that we have received the Opening Statement of Chemtura in hard copy; right?

MR. SOMERS: That's right, Madam Chair. The opening Statement of Chemtura comprises documents, copies taken from the record of documents in the record only. There is no demonstrative exhibit for our part. We have received Mr. Douaire de Bondy's, for Canada, demonstrative exhibits that

we expect him to review later in his Opening Statement this morning.

MR. DOUAIRE de BONDY: Yes, and I'd simply note that we will be providing to the Tribunal a hard copy of our Opening Statement later in the morning.

PRESIDENT KAUFMANN-KOHLER: That's fine. Thank you.

The hearing is held in camera, so we have in attendance only persons who are authorized under the Confidentiality Order, and every Party should monitor this because, obviously, the Tribunal would have difficulty doing it.

Fact witnesses, and this does not apply to Expert Witnesses, should not attend before their own testimony, but that does not apply, if I understand the rule correctly, to the oral arguments. Obviously, they can be present during your openings and your closings as well.

Then we have received a consolidated chronological list of contemporaneous documents. We have received a hearing bundle. We have received an index of consolidated legal annexes, all this in the last days, and hard copies, I understand, of the hearing bundles today, and of the other documents actually as well.

Did I forget something that we should have?

MR. DOUAIRE de BONDY: Madam Chair, we simply wish to notice the presence in the room--you were asking earlier about

09:04 Mexico's representation, and I believe Mr. Carlos Pineira and Alejandro Rojas have arrived.

PRESIDENT KAUFMANN-KOHLER: Fine. Good morning.

Before we start with the Opening Statements, are there any comments, questions about the proceedings?

MR. SOMERS: None here, no.

PRESIDENT KAUFMANN-KOHLER: Mr. Somers, no? Thank you.

Mr. Douaire de Bondy?

MR. DOUAIRE de BONDY: No.

PRESIDENT KAUFMANN-KOHLER: Thanks.

Then I can turn to Mr. Somers and give you the floor for your Opening Statement, please.

MR. SOMERS: Thank you, Madam Chair. On the point of technology, I trust that the PowerPoint presentation, which is, as I said, a cull of documents from the record, appears on your screens before you?

PRESIDENT KAUFMANN-KOHLER: Right now it doesn't, but maybe it will.

(Pause.)

MR. SOMERS: Thank you. That looks good.

PRESIDENT KAUFMANN-KOHLER: Fine.

OPENING STATEMENT BY COUNSEL FOR CLAIMANT

MR. SOMERS: In Claimant's review of the record, there was--we had difficulty in finding that the issues in this case

had been adequately joined. It seemed as though the Parties were, to some extent, talking past each other, and so in my Opening Statement what I wanted to devote my time to--

PRESIDENT KAUFMANN-KOHLER: Could I ask you to speak a little bit closer to the microphone.

MR. SOMERS: Certainly. I beg your pardon.

And so, in our Opening Statement, what we wanted to do was focus very much on the facts as we understand them as opposed to legal argument. We will reserve our--the preponderance of our comments on the legalities of things for our closing statements after the Tribunal has had a chance to verify these facts by hearing the witnesses through the course of the hearing.

And so, what the Claimant's Opening Statement is is primarily an exposition of what Claimant asserts are the key facts as reflected in documents in the record itself. Before I turn to those--and I might add, all of the documents in this presentation, in our Opening Statement, are present in the joint hearing bundle as well for--merely for convenience.

Before I begin, just some comments on what it is that we will be talking about, and I suppose our mascot for this would be these chaps here, flea beetles.

The flea beetle eats the seed leaves of the canola plant. It's a serious pest, as you can see from the bite marks in those seed leaves. Those little chaps are only upwards of

09:07 three millimeters long, but they create a huge problem.

They're a problem in North America primarily because of agronomic reasons that are reflected in the detail in the record and that escape me but having to do with climate, having to do with the way canola is grown in North America as opposed to other parts of the world.

Now, a problem in Canada for canola is a very serious problem, indeed. Canola is second only to wheat in terms of the acreage planted and the economic importance to Canada and to the industry. There is upwards of 12 million acres or 5 million hectares planted in Canada of canola. A large amount of it is destined for the export trade. Obviously that's too large an amount for Canada to consume.

The Claimant had a very successful business in Canada with a line of pesticides that adequately addressed, that fully addressed, and very thoroughly addressed, this flea beetle problem. In fact, it was so successful that the Claimant had upwards of three quarters of the market in Canada for flea beetle treatment.

Now, the way that the Claimant's products were used to treat flea beetles was as a seed treatment. There are many ways to apply pesticides to plants, including spraying these little devils directly, or spraying the leaves on which they prey, and therefore eradicating them that way, but with modern developments in pesticide treatment applying the pesticide to

09:09 the seed itself, and then when that seed is planted, exposing the predators to the pesticide, is found to be the least environmentally impactive and the most effective way to event flea beetle damage as opposed to waiting until the fellows are feasting on your crop and then trying to eradicate them at that time, as well as preventing dissemination of the pesticide into the environment to the maximum extent possible.

And so, the Claimant's success partly turned on having this seed treatment product whereby the seeds before planting are coated with a minimal amount of the pesticide, but an effective amount planted, and then left to grow unmolested by the flea beetle.

The Claimant's business was primarily to sell the seed treatment to companies that are established for this very purpose, to treat the seeds, as opposed to individuals or growers who had also applied. There were some businesses as well, and sales to the growers and the farmers, but the very large preponderance, 80 to 90 percent of its business, was to seed treaters, which are by equipment and by training particularly enabled to treat seeds with mechanized equipment and in an economic and safe fashion.

In order to sell pesticides in Canada, including seed treatment pesticides, Canada, by law requires pesticides to be registered, not only as to the particular chemical which is involved in the pesticide or the combination of chemicals in

09:10 the pesticide, but also the end use for which that pesticide is destined, and so it's not enough to have one's lindane formulation registered as a pesticide. It is registered as a pesticide for use on crop A, crop B, crop C.

The events leading up to this Claim began as a deregistration of the Claimant's pesticide products for use on canola, and this will come up routinely throughout my presentation and, indeed, throughout the hearing. It began as that, but it spread, as you will see, to the pesticide, the same pesticides registered for use on all other crops as well.

As I mentioned, the Claimant had a very successful seed treatment business, for canola business as well as seed treatment for other products, but canola was the center of that business with a product line of eight different pesticides. These were combination pesticides. There are many pests that attack plants, including canola, and insects is but one, which is what the lindane component of the pesticide was addressed to. There were also--in the Claimant's pesticide line were also fungicides, and so they were combined together, and when applied to the seed would prevent both funguses and insects from preying on the plant.

As I mentioned, the Claimant had a very successful business for many years in Canada, marketing lindane/fungicide products in Canada. In the space of five years, though, beginning in 1998, that business was essentially destroyed. It

09:12 was taken from the Claimant.

Now, we will see that the reason for this was at least ostensibly the lindane constituent, the lindane component of the Claimant's pesticide line, and that it represented a marked change in Canada's position on lindane.

And turning to the next slide, which focuses on Canada's--the next series of slides will focus on Canada's position in regard to lindane as a pesticide before the events complained of here.

We see here, at Slide 4 something entitled--it's Exhibit 17 to the Claimant's Reply--"A Draft Briefing on Technical HCH for the UNECE LRTAP, Long-Range Transport Abstract Pollutants," and there will be a lot of acronyms in this, and I will ask you to bear with me on that, "Persistent Organic Pollutants Protocol."

Now, you will see that it refers to Technical HCH. A little bit of chemistry unfortunately is called for here. Lindane is something called an isomer, which is one arrangement of a possible many arrangements of the atoms in a molecule. Hexachlorocyclohexane, HCH, is the chemical name for a group of isomers. Lindane is but one. For convenience or to baffle the laity, chemists distinguish between various shapes of the molecule with the same composition by using Greek letters. Alpha, beta, and gamma in this case are the three isomers of lindane--I'm sorry, the three isomers of hexachlorocyclohexane.

09:14 Lindane is only one of those. It is the effective pesticide. It is also the least environmentally harmful of the three. Alpha and beta isomers of hexachlorocyclohexane, by contrast, are not effective pesticides and are environmentally very harmful.

At various points in the record we will see sometimes references to lindane and other isomers of HCH, and/or isomers of lindane, indeed, which is a misnomer. And, in fact, when a person--when an analysis is wanting to focus directly on the impact of lindane and not confuse it with the impact of those other isomers, they will refer to lindane or the gamma isomer. When they are used as a group, lindane and other isomers or Technical HCH or similar terms, it lumps together the environmental and harmful impacts of all of those isomers, and tends to put a thumb on the scale of the impact that's perceived because it lumps in along with the gamma isomer lindane itself, alpha HCH and beta HCH, and we can see that Canada itself makes this observation--now, this is in 1997, under the title Justification, "We support attempts," it says, "to distinguish very clearly between lindane and Technical HCH."

And then jumping gown down to the next paragraph, "By focusing on lindane specifically, we are omitting the specific HCH isomers which are of greater concern. It is, in fact, the use of Technical HCH to which can be more reasonably attributed

09:15 the levels of HCH isomers found in the Arctic."

Historically and internationally, various versions of HCH were used. In some countries, Technical HCH, all of the isomers in a salad were thrown into a pesticide. In Canada, and by the Claimant, however, only the gamma isomer, only lindane itself, was used, and that was a much more focused and much less environmentally burdensome way to apply the pesticide and use of the pesticide. Technical HCH being alpha, beta, and gamma, caused various forms of environmental fallout, as we'll see from the record throughout the week and on the paper.

So, I'm sorry, that was a little peroration on the chemistry of HCH, but we can see, and I'm turning to the next slide now, that Canada wanted to clarify, as it defended lindane in the international fora that it wanted to focus on lindane itself and not confuse the issue by adding the alpha and the beta because, for example, those isomers, alpha and beta, were not used in Canada. The gamma isomer was purified, sourced by that way by the Claimant and formulated into the pesticide to ensure that alpha and beta contaminants were not present.

Here, we see an internal PMRA E-mail from the person who was apparently responsible, and they won't be appearing as a witness in these proceedings, I understand, but who was charged with at least some of the international activities in relation to Canada and lindane, again from 1997, in August.

09:17 And I have indicated just by an arrow there that the text I would like to focus on in the third paragraph. "We would like to ensure that if lindane does make its way into the protocol, current Canadian uses of lindane are not compromised."

It was recognized that lindane was a very important and registered use in Canada, and it would be highly inappropriate for Canada under the international fora to support the eradication of lindane while it had legally registered its use in Canada and entitled Canadian investments or investors to formulate and market that product here.

On the next slide, in Exhibit to our reply as well, we can see the progress--this is later on in the year 1997, where Canada observes, "As a result of extensive rewriting of the protocol text, the proposed commitments allow the use of HCH mixed isomers as an intermediate"--so, this is only at the manufacturing stage--"in chemical manufacturing only, and allow products containing lindane to be used for the following purposes: (1) seed treatment," which is the issue at the center of this dispute, as well as five other uses. Five other uses incidentally with much more environmentally troubling aspects, including tree plantations, indoor and outdoor nursery stock. I say that because use in those--those types of uses would involve more than just coating a seed and planting it in the ground using minuscule quantities, but also, for example, direct application by spraying to leaves, dusting the product,

09:19 whatever. In any event, Canada supported all of these six uses as late as October '97.

Next paragraph, "It should be noted that Canada was the only country asking that the uses in (5) and (6)"--that's tree plantations and indoor use--"be among those permitted under the protocol," and then various other countries speaking about their positions on those things.

At this point, as far as Claimant was concerned, Canada was defending the uses of lindane internationally, and sometimes in isolation, in fact, but because these Agreements work on international consensus, one country is enough to prevent, and can and does prevent, for example, the addition of a pesticide or a chemical to a restriction list or a prohibition list.

Further, in that third paragraph of that slide, "We have explained," Canada says, "that we cannot commit to such a deadline," the deadline being a reassessment by 2005, "and we require that all of the aforementioned uses remain acceptable under this protocol. The reassessment of existing uses by 2005 under the protocol is seen as a compromise whereby the concerns associated with lindane would be addressed. Through the Executive Body, Parties would have a say in the kind of assessment that's necessary. And Parties would have flexibility in determining the degree of participation in that reassessment."

09:20 In other words, the compromise allows Canada much wiggle room. Even if it commits to a reassessment, the degree to which it reassesses, the way it reassesses, and so forth remain in Canada's discretion.

After--immediately after this, and, in fact, in 1997 itself, as the record shows, an independently managed subsidiary of the Claimant in the U.S. was marketing a competing product to the Claimant in Canada. It was marketing a different kind of seed treatment for canola. As I explained, canola was an very important crop in Canada, and primarily in Canada. In fact, canola is virtually a Canadian invention, but its success spread, and in the United States, by the end of the nineties, it was becoming successful there as well. They were needing treatments there against flea beetles as well.

Because Canada had been so important and the canola crop had been so important, the Claimant addressed that need in Canada by registering its lindane-based pesticides here. There hadn't been a financial need, and, in fact, a market demand for that because the canola crop before the late nineties was insignificant in the United States. It's still much smaller than in Canada. It was less than 10 percent.

And the independently managed subsidiary, called Gustafson, Inc., in the United States, wanting now to capture that growing canola market in the United States, complained to the EPA or observed to the EPA, I should say, that

pesticide-treated seeds were being imported into the United States with a pesticide that wasn't registered in Canada because the Claimant hadn't registered that in the U.S. yet. There had been, as I said, formerly no market demand, but it was growing. The EPA simply responded to that letter by saying, well, U.S. law is, if you treat a seed with an unregistered pesticide out of the country and try to bring it in the country, it falls under the pesticide rules of the United States, and it cannot be done. In order to have that pesticide-treated seed brought into the United States, that pesticide would also have to be registered in the United States as well. Logical and simply an expression of U.S. law.

Accordingly, the EPA now advised of this in effect by a U.S. company, couldn't turn a blind eye, as frankly it had been, or a negligent eye to the fact that Canadian registered, Canadian only registered pesticide-treated seeds were being brought into the United States, and so it went out to the trade and in various forms, of which this slide is one, and announced that this is prohibited.

Now, this complaint occurred in '97, and what we can see from this slide here is that--a little background first.

What happened was the EPA announced it would close the border to those imports but not on an urgent basis. The complaint happened in '97, and the EPA gave fair warning to the trade by saying by June '98, we're going to close the border to

09:24 this material.

We can see from the slide that I'm showing now, Slide 8, that, in fact, because access to that valuable pesticide was going to be cut off in the United States by the EPA, there was a competition issue, a trade issue, that arose between the two countries. That pesticide was a fraction of the cost of the alternatives. U.S. growers wanted access to that treated--that pesticide in order to be competitive with the Canadian imports, the Canadian imports of canola product.

So, you can see there that this is a letter from--an extract of a letter from Lynn Goldman, who will appear as a witness in these proceedings, to the Commissioner of Agriculture for North Dakota, who had obviously complained to her, and this letter is in response.

Looking at the first paragraph, where Lynn Goldman reiterates a meeting that happened between them in North Dakota on August 5th, "At our meeting in North Dakota on August 5, you raised the issue of differential registrations for lindane in the U.S. and Canada. You requested EPA to establish a 'level playing field' for lindane either by quickly establishing a tolerance in the U.S.", in other words, permitting it in, letting it in, "or persuading Canada to discontinue lindane." In other words, North Dakota farmers, represented by their Commissioner of Agriculture, wanted either access to that same wonderful pesticide or stop Canada from using it and bringing

it into the country so that they would have a level playing field. This is a trade issue, obviously. It had nothing to do with health or environment or anything else. It wasn't a concern that they wanted to stop lindane because of some health issue.

Canada has consistently represented--I'm sorry? Yes, Mr. Crawford.

ARBITRATOR CRAWFORD: You said there were two alternatives. One was tolerance, and the other was the phasing out of lindane in Canadian. Why was there not a third alternative, which is registration of lindane for use in the United States, which would, I understand, have allowed the product in?

MR. SOMERS: In fact, the use of the word tolerance here is a shorthand for exactly the point you make. It is what it is. Tolerance itself would not have been permanently enough because with a registration, that would have--that would actually have been required as well eventually. Tolerance would have been--for example, a time-limited tolerance would have been an immediate measure that would have allowed it to come in, but ultimately and eventually, registration would be allowed in. I will get to that later on in my presentation, but your point is well-taken, that this is a use of by the Commissioner, here is a bit of sloppiness that I have repeated in my submissions. In fact, it would be a tolerance and

registration that would have been required.

The reason I'm emphasizing this and spending maybe so much time on it is because Canada has emphasized the health and environmental issues stretching back even into days before this in the submissions that we have seen. In fact, the inception of this issue, the germination of it, if I can say so, the gestation of it, is a trade issue. It became something else and quickly, but it began and was understood by the Claimant and by other industry players as strictly a trade issue. It is level playing field. It is competition in terms of access to an economical and very effective pesticide, and nothing more.

And I'm jumping down to the next highlighted section of that middle paragraph on Slide 8, "In light of the confusion over the U.S. policy on treated seed, EPA made the decision to place a low priority on enforcement of its requirements for the '98 growing season."

This is not a matter for urgency. This is not trousers on fire. This is the EPA saying yes, we recognize that this stuff has been coming in. It should have been regulated, bit of embarrassment, and not wishing to completely block the imports immediately because there was no pressing need to do so. It was simply a competitive fight by North Dakota, and Canada and North Dakota is notorious for being very vigilant about its trade rights and competitive matters. That's just editorializing. I'll stop now.

09:28 Next slide, which is Slide 9, as this trade issue materializes, Claimant says, and this is our case, that the EPA--I'm sorry, the PMRA, saw this as an opportunity to advance a separate agenda. As we can see there, this is an E-mail, an internal E-mail at PMRA from Wendy Sexsmith, who will also be appearing, to another chap at PMRA, Mr. Ormrod. In it Wendy Sexsmith says, "I have not received lindane email yet, but spoke to Tony Zatylny," who will also be appearing, "and am now trying to get in touch with EPA.

"Gustafson is considering and IPCO is in favor of removing lindane. I am now going to try to sell this to EPA, with a go ahead from Tony as a way to stop the fuss."

It's not clear from this because of the abbreviations and the inside references being made, but, in fact, it's about withdrawing, having the industry withdraw from the market lindane-based canola seed treatment.

Another slide in relation to this trade issue, this is a letter from Lynn Goldman to the USTR, U.S. Trade Representative, a trade issue where Ms. Goldman explains the issue in terms of the border dispute about whether Canadian registered pesticide-treated seeds coming into the United States should be allowed and what to do about it. At the indicated section of the text, "We are told that these pesticide issues are exacerbating the dispute over trade practices. EPA is prepared to take specific actions which are

09:30 consistent with our already significant bilateral harmonization," et cetera.

Jumping to the next emphasis, "One of the most pressing issue for our northern state growers is the greater availability in Canada than the U.S. of approved pesticides for canola, flax," and other crops.

We believe it exists--skipping ahead--"we believe it exists primarily as a result of private marketing decisions," and I mentioned that before, canola, as an important crop in Canada and a diminutive one until recently in the United States, didn't warrant the expense and trouble and data requirements of a U.S. registration, until, of course, the EPA was alerted to this and it became a trade issue.

As you can see from the last line in that slide, "the market for pesticides used on these crops, particularly canola, is substantially greater in Canada than the U.S."

Accurate. Absolutely so.

As I mentioned, though, it quickly became behind the scenes not a trade issue, but, in fact, an agenda to remove from the market all lindane products, not just canola treated seed destined, but all.

This is a communication from the PMRA, I believe, to the EPA. There were some--in any event, it's definitely a PMRA document. There was some question as to where it lay in the record from Canada, and I'm sure we'll have submissions related

09:31 to that, but it is in any event, a PMRA lindane, as you can see, seed treatment update, October '98.

We can see as jumping down to the third paragraph before the bullets, "The resulting proposal has emerged"--this is a proposal--"after follow-up to this issue with both the Canola Council of Canada and EPA staff," and then the third bullet, "commitment between EPA and PMRA to work together to phase out all uses of lindane."

Now, from a trade issue that concerned canola seed treatment, an unregistered use in the United States, it's become a proposal to get a commitment between the two agencies to phase out all uses of lindane. This is a PMRA-inspired proposal.

I hadn't mentioned before, but lindane in various pesticide formulations, was registered in the United States, just not for canola. It was registered for upwards of 19 other seed treatments, so there was no particular concern or animosity or targeting by the EPA of lindane.

The next page of that exhibit, in the next Slide 13, "Next steps," it says, "for PMRA internal use," and I wanted to emphasize this. It will become relevant later on. The third bullet again, "If registrants commit to provide submissions for formulation changes for the lindane canola seed treatments"--in other words, a formulation change that includes the removal of lindane and a substitution with some other insecticide to kill

09:33 that flea beetle--"PMRA will commit to short time lines for registering the formulation changes." So, PMRA was interested in expediting the removal of lindane and putting its money, as it were, where its mouth is by offering to produce replacement products because as I said, that flea beetle, while three millimeters long, is a very serious problem, and so it's not a matter of just withdrawing lindane and then letting the industry fend for itself. The PMRA, as the gatekeeper of pesticides, had to ensure there was something that could seamlessly replace a lindane-based pesticide.

And the next slide, the idea of withdrawing lindane was floated to the industry. The record will show that. I'm jumping ahead here to a reaction of Gustafson.

Now, Gustafson, you can see in the second--well, the first sentence, "The PMRA today received a faxed copy of the document from Gustafson," and Gustafson was on the Canadian side of things. Gustafson at this time was the marketing arm for the lindane products of the Claimant, of the Claimant's investment in Canada. It was merely a business unit at this date.

And so, what the PMRA internal note is commenting on in the second paragraph is, "Our interpretation of this letter is that Gustafson is stating they will not participate in the Canadian canola grower's plan to have lindane removed voluntarily as an insecticide." And so, at this point the PMRA

09:34 was obviously aware that there was not industry consensus. The most important player in the industry with three quarters of the lindane canola seed treatment market wasn't playing ball. They weren't interested in simply walking away from that very valuable business.

As part of PMRA's efforts to advance with the Canola Council, with the growers and the canola industry's trade associations, to advance this withdrawal of the lindane use, it had communicated to the market an impression that all Registrants had to agree. Now, since the Claimant had more market and more invested and more to lose than all of the other Registrants for lindane or the other three put together, they were the person to get. They were the Agreement that was really needed by PMRA if it wanted an orderly and rapid withdrawal of this product from the market. This letter indicates PMRA knows that the Claimant was not or through its Gustafson unit, was not willing to do so.

In the comments at the bottom of the page, it's commenting again on the Gustafson letter. The Gustafson impression was that everybody had to agree. In fact, PMRA states there, it did not made unanimous agreement among all Registrants a condition with the voluntary removal. This will become a little more meaningful later on, but I'm trying to deal with the issues as they come chronologically.

The next slide, another letter from Lynn Goldman to

09:36 EPA writing to Tony Zatylny. This was--this letter reflects the PMRA and their opposite number Agency in the United States working together to attempt to get a voluntary removal of lindane on the Canadian side. We recall that prior slide where the Commissioner of Agriculture for North Dakota was saying either give us a tolerance, tolerance/registration, or remove it from the Canadian side, but one way or another, remove that tilt from the playing field. It gives the Canadian canola growers such an advantage.

It's clear that the way the EPA has come down on this is to go along with Canada's desire to actually remove lindane. And we saw that with complete phase-out of lindane products in that previous slide that was from PMRA, and the slide from Wendy Sexsmith saying I'm going to try to sell this to EPA. This was the Canadian agenda being cooperated with by the EPA.

This letter here, Slide 15, is the EPA responding to Anthony Zatylny, who will also appear as a witness in this proceeding, at the time I believe the Secretary of the Canadian Canola Council, which is a trade association of the canola industry which, for example, uses canola crop to processing the product. We can could see from the highlighted section there that the U.S. and Canadian Government hoped to announce the Registrants were voluntarily removing. Through these voluntary efforts there could have been a level playing field, so Lynn Goldman is responding to her constituency in North Dakota.

09:38 However, what you can see from the accented text at the bottom of the page of the last paragraph, "I'm optimistic many of these trade issues can be resolved," and then she reiterates the rule that if it's not registered in the U.S., it cannot come in.

I'm jumping back up to the first paragraph just to complete that thought. It says, "Since these voluntary actions do not appear possible at this time"--in other words, everyone was aware that there was not a agreement, even as late as November '98. There was attempts to get that agreement by that PMRA and working through the Canola Council, but it hadn't materialized.

At this point, this is a month later, Canada and the U.S. meet and come to what's called a Record of Understanding. It's not a treaty. It's not a binding, any binding commitment, but it's an expression of cooperation, various aspects of agricultural trade, as you can imagine, very important, between the two countries. One of the provisions in it is this one here that I have excerpted, 13, Pest Control Products: "To avoid future disruption in bilateral trade, Canada and the U.S. agree to the following initiatives." Again, we are still squarely in, as far as the public record is concerned, a trade issue. So far, the silence on health and environmental impact and lindane, this and that is deafening.

I'm going to the next slide, where the pertinent

09:39 section is. I emphasized there that first bullet on that page, "Canadian canola growers have requested"--now, these are the growers--"have requested Canadian Registrants," says Canada, "to agree voluntarily to remove canola/rapeseed claims from labels of registered canola seed treatments containing lindane by December 31. All commercial stocks," et cetera. This is contingent on Registrants requesting voluntary removal. Again we are in December here of '98. There is no agreement. The request has been made, and we'll see who actually was behind that request, but the request has been made. There isn't for Canada to report here to the United States any existing agreement to do so or it would have done so.

Next slide is an exhibit to our reply as well. It's Wendy Sexsmith marking up a copy of a draft news release by the Canadian Canola Council. We can see obviously that behind the scenes the PMRA is managing the message. It is ushering through the Canola Council the message that lindane is going to be voluntarily removed from canola seed treatments. We can see from the edit that the edits on the document, the positioning of the message that PMRA is trying to accomplish. For example, I won't go through them all, but for example, in the first paragraph, first full paragraph of that new release, and apologize for the size of the print, "The Canadian Canola Growers Association today announced that," and deleted is "Canadian and U.S. Pest Management Regulatory Agencies," at

09:41 hand--that's taken out--and what's remaining is announced that suppliers of crop-protection products such as the Claimant, have agreed to develop new seed treatments for canola. Talk about putting a positive spin on it. This is really about walking away or being forced to leave lindane and with a commitment to get replacement products for it. It's styled as, let's obtain some new seed treatment products. Oh, by the way, I guess that means we won't need lindane anymore.

Other edits in the document are equally instructive as to PMRA's actual role in what this is. It's been styled by Canada as an industry-led withdrawal. And, in fact, Claimant says it is a PMRA-managed and -orchestrated withdrawal. You can see the comments there. They're annotated Tony comments, Wendy. We propose to put this document to Wendy Sexsmith when she appears as a witness, but that's the attribution.

Again, the next slide, another internal E-mail from Wendy Sexsmith, who played a key role in all these developments, and it's fortunate that she will be appearing in these proceedings to clarify these things.

The part I have emphasized there, just as a note, some comments, timing on the demise of lindane. In communications to the trade there was no talk of demise of lindane. There was no talk of removal of lindane on anything but to level the playing field in relation to canola seed treatments. It's become from a trade issue to basically removal of lindane as

09:43 that prior document we saw, phase-out of all uses in the space of one year. You will recall--this is the beginning of '99--we will recall the '97 documents where Canada cannot agree to restriction on these uses, on these six uses and so forth in the space of one year.

Behind the scenes, this is occurring. As far as publicly, this is what is occurring, as we see on the next Slide 20. This is a letter from the Executive Director of PMRA to the Canadian Canola Growers Association. The association is being responded to about the proposal to remove the registration for canola seed treatment by lindane.

I have emphasized this, too, and it will become pertinent a little later on under Bullet 3 or under point 3 in that agreement, the Pest Management Regulatory agency and the U.S. EPA will continue to work with Registrants to facilitate access to lindane replacement products, and so we will see that sort of initially general commitment and later commitment to the Claimant itself not come to fruition.

There is also dispute in this record, and another place the Parties don't seem to agree as to where and when an agreement occurred for the voluntary withdrawal of canola seed treatment. You will see in the highlighted section of the second paragraph there, Gustafson Uniroyal--that's us--Zeneca, IPCO, and Rhône-Poulenc, those are the four companies that had lindane products of which Gustafson Uniroyal was, of course,

09:44 the most important, have indicated in writing and in discussion with staff their agreement in principle with the above three components. Agreement in principle meaning a framework for an agreement detailed later.

Again, at the last page--last paragraph of that slide, "PMRA and EPA committed to continue to work with growers and registrants to facilitate access to replacement products." It's not enough to take off lindane. We have to have a replacement product both for the both market demand, and also for the damage to the crop that would occur without one.

This is the next page of that letter, in fact. "I am very pleased that all four registrants have agreed in principle." And again, the PMRA even is careful to say that there is not an agreement. There is no concluded. It was agreement in principle, let's discuss it. This sounds like something we can work with. As late as February '99, still no agreement, no concluded one.

Next slide, also a letter from the Executive Director to Uniroyal itself, repeating the Canadian Canola Growers Association terms of withdrawal. And I go to the next page of that same document, which is the next slide, "Given recent clarifying discussions with staff and your written input, my understanding is that Uniroyal/Gustafson agrees in principle to the above." And again, its commitment to facilitate access to replacement products. So, again, by the PMRA's hand, in

09:46 February, there is no concluded agreement. This is the third page of that same document, where PMRA understands in the last part of the highlight, it will be important to respond to all of these requests in an equitable manner. And that will become pertinent as we see how PMRA, in fact, dealt with registration of replacement products of the Claimant and of its competitors.

And again, at the bottom of that page, "I am very pleased that all four registrants have agreed, in principle." No one believes that there is a concluded agreement at this point.

The Claimant, as the most important player in the pesticide market, wanted to negotiate terms of withdrawal that it could accept. It wasn't enough that others had come to certain understandings with their relatively trivial, for example, sales of these lindane-based products. It wanted to ensure that not only its, but its customers and growers' interests were adequately protected. It was at this point it may have had 80 percent of the treatment market.

There is certainly lots of other correspondence on the record back and forth between PMRA and the Claimant in 1999, but they came down to this. This was the short strokes. On October 27, 1999, Al Ingulli for the Claimant wrote that these were his conditions under which the Claimant would withdraw its products.

Bear in mind, there has not been any condemnation or

any sort of indictment of the product. This is not something where the Minister of Health or any of his delegates could come along and deregister the product for safety concerns. There were none, none that were scientifically based in any event in Canada, and it is--so the voluntary withdrawal harks back to that trade issue, and it's taken a year, year and a half to get to this.

The conditions, which will become important later on, as they are systematically breached by PMRA, are the ones enumerated here. Condition 2: "PMRA and EPA shall coordinate and collaborate on the timely review and re-evaluation of new lindane data already submitted or to be submitted in accordance with any data call in," the routine means by which these agencies call in data from the companies who are active participants in the evaluation and safety of pesticides or regulatory requests and provide a scientific assessment of lindane by the end of 2000.

Behind the scenes, PMRA had been preparing a scientific review of lindane. The trade was aware of that, as we shall see.

And the Claimant's concern here was that it will withdraw, but PMRA must go ahead and do the science and provide a report on a timely basis, and the Claimant was confident that it would be passed. It would succeed and not be indicted by such a special review, but it was important that it be done on

09:49 a timely basis so that the Claimant could return to market without a gap in coverage occurring.

Third condition, obviously that if both government agencies had determined that lindane had reversed toxicological effects, then the Claimant would go away. It wouldn't ask for reinstatement of a toxic product.

Next page, next slide, continuation of the conditions. The fourth condition, "In the event that PMRA determines lindane is safe to be used on canola as a seed treatment or EPA should issue a canola tolerance or determine that lindane is exempt from requiring a tolerance in canola, Uniroyal shall request from PMRA the reinstatement," et cetera, and PMRA will comply.

Now, this is extraordinary. This condition is that either PMRA finds it safe or EPA allows it into the country. This exemplifies that it was a trade issue. With PMRA, if PMRA agreed to this, is it dead? It would mean that if the EPA grants a tolerance, allows Chemtura or lindane-treated canola seed to come into the U.S., if that alone happens, PMRA will reinstate it. This is a trade issue. This is something--in other words, if the obstacle is removed, I don't care if it's by the PMRA side or the EPA side, Claimant is saying you will let it in.

Under condition 5, all of our other lindane-based products will stay registered because this is a canola seed

09:51 treatment trade issue. This isn't a lindane, oh my gosh, scary issue.

Bullet 6, "All stocks of Uniroyal's products containing lindane for use on canola are allowed to be used up to and including July 1, '01." Stocks are pesticide products. Used means applied to canola seeds. We can do that until July 2001, and this had been worked out with the industry as well. That was considered the cutoff date for using the pesticide products and treating the seed.

The additional condition doesn't become pertinent because of subsequent events.

The next slide is PMRA's agreement to those conditions. Clearly says, "I am confirming PMRA's agreement with your stated commitment to voluntary remove," and then jumping down, by December 31, cease production by December 31, '99, and the provisions that are outlined in the October 27 letter received from you by fax, so here we have a meeting of the minds. PMRA agreed to those conditions.

The balance of my statement is primarily a litany on how several of those conditions were breached to the detriment and, in fact, to the destruction of the Claimant's lindane business in Canada.

As we saw one of those conditions, the pesticide products could continue to be used, in other words applied to seed, until July 2001. Now, if you apply a pesticide product

09:52 to the seed before the day of July 2001, there is no point in doing that unless you are allowed to plant it in July or August. And, in fact, planting is done in April, May, in Canada, when the ground finally thaws out, and so to apply a pesticide product until July to someone in the business would imply, well, I can plant that seed. No one would treat a seed in order to throw it away.

Terms that the PMRA had worked out with other companies or had agreed to with the Canola Council were that you cannot apply the pesticide, and you cannot treat a seed, and you cannot plant the seed after July '01, but those were not the terms with the Claimant. Those were the terms with other players who had far less at stake with the Canadian canola growers, who had an assurance that they would get a replacement product anyway, and so on.

And so, after--see, this is in December 2000 when the time is coming for the deadline, which is going to come in July 2001, for use, in other words, for treating the seed. PMRA makes it known to the trade that not only can you not treat a seed in July 2001, you cannot plant that seed. So, any--no one can reply exactly the number of--treat exactly the number of seeds they know they will need. They treat enough for the year, and if there is left over, they plant it the next the year. The canola has a life expectancy of a couple of years, as does the pesticide. So there's carryover invariably

every year. No one wants to undertreat. And they know they will have to treat it eventually, so there is a little bit of conservative estimation, a little bit of overtreatment, a hangover of leftover seed that is treated that will not only plant it. If you allowed to apply pesticide until July 2001, you apply it, for example, in anywhere from March-April prior to planting of 2001. There is leftover, and you want to plant that in 2002 because that's your investment.

But this Fast Facts Fax is a communication from the trade to the trade that fines as big as 200,000 will happen to you.

Now, you can imagine what that would happen--what would happen if in December 2000 this happened. Sales are coming up for the 2001 year. If anyone is caught with a treated seed after July 2001, they get hit with a substantial fine. Would you treat a seed under these circumstances? Unlikely. Not with lindane. The impact on the Claimant's sales was substantial and immediate.

There is correspondence I'm going to pass quickly through, as our time is, but correspondence throughout this section of the statement on the effect of this and whether PMRA, in fact, will enforce this or will allow the planting of treated seed.

At the end of the day--and it was a long day--at the end of the day, PMRA allowed it, but not before making very

09:55 well-known to the trade the fines and the penalties that would accrue if seeds--if treated seeds were not disposed of but were planted after July 1, 2001.

Moving to the next slide, this reflects the PMRA in 32. The PMRA is gathering inventory to ensure that the manufacturing cutoff date of December '99 was kept in good faith by the producers and that they didn't overproduce, for example, to use up leftover stock or to have more leftover stock and overtreat seed as well as--and they're policing the Voluntary Withdrawal Agreement.

We can see at the bottom of that page, Page 32, at GP's January distributor--GP is Gustafson Partnership--by this point, the Gustafson business unit in Canada of the Claimant had become a 50/50 partnership with another company with Bayer. It still continued to market the products, the pesticide products, on behalf of the Claimant. At GP's January distributor meeting, customers with firm orders--this is January '01, so immediately after that Fast Facts Fax we saw trumpeting those fines and other warnings by PMRA in the field that fines would accrue to anyone who used treated seed, who used planted treated seed after July 2001. So, here we see the distributing customers with firm order started to, next slide, renege. They're losing sales. No one wants to treat a seed. They are afraid they're going to be hit with a quarter million dollar fine for planting it later that year.

09:57 This is a communication from the PMRA. You can see the distribution list. It's going to the trade. At the bottom of the page, Slide 34, it's going to the Canola Council, Seed Trade Association, the Registrants, and so forth, and PMRA is here as late as June 15, 2001, the deadline is two weeks away, canola-rapeseed and the use of lindane, this is the text of the second arrow that I've put in. The use of lindane treated canola seed are to end by July 1, 2001. So, the ability to use it as a pesticide and apply it to a seed to July 1, 2001 was illusory. No one can treat a seed on June 30th. It fact, it was way past the planting season and then plant the thing. In other words, they're reiterating that stipulation.

There follows correspondence that between the company, and this is with JoAnne Buth, who will be appearing on behalf of the Claimant, but where the Canadian Canola Council is saying please let us plant these seeds. We have all these carryover seeds. What are we supposed to do with them? They cost a fortune to dispose of. The pesticide Regulations in Canada recognize themselves, as does the Agency, that the most environmentally safe way, not to mention economical way, to use up pesticide stocks is to use them, is to plant them. If you can't plant them, you have them concentrated in a barrel or a bag, and you have to get rid of them somehow. This is routine in the trade. In fact, it's reflected in the Regulations that normally this is how discontinued pesticides will be disposed

09:59 of. So, this is the Canadian Canola Council itself asking PMRA to see reason and to allow these treated seeds to be planted.

PMRA's, this is a letter in the next slide, 36, a letter from Wendy Sexsmith, first line, "For the reasons stated above, the PMRA is not in a position to offer a final decision on your request at the present time. However, we fully appreciate." So, as late as January 2002, they're still not allowing them to. Planting season now is coming.

More correspondence, more difficulties from PMRA to not face this issue and issue a clear response and a fair and a reasonable one. I won't go into detail with it because of time, but it repays reading.

Moving ahead to more correspondence on this issue, this is not the Claimant. This is a competitor of the Claimant but in the same dilemma because everybody has withdrawn under their own terms at this point. This is as late as January 2002. The competitor as well, Aventis, which also has customers, also has treated seed issues that its customers are holding and cannot plant yet because of the PMRA restriction and is asking for a reasonable reading of that restriction. And we can see at the bottom line of that sentence there, "The underlying reason for the CCC position has been constant," to the Canadian Canola Council--fear of trade issues with the U.S Is it still about canola seed on the surface and in the public eye it is a trade issue, and it is a trade issue around canola,

10:00 not around lindane.

Next slide, it's Page 40, which is a continuation of that same Aventis letter. They're saying there in the second sentence, "Our position is clearly stated. We support the use of treated seed. We did not comment on the use of formulated products." This is where the PMRA is saying if we don't have an undertaking by everyone to not use the product, then we won't give you permission to plant that--that already treated seed. In fact, there was no such issue. It was synthesized by the PMRA.

We can see Aventis's conclusion. This is not the Claimant. This is a competitor of the Claimant. The last sentence or the second to last sentence of that letter, where the arrow indicates, "The inaction and indecision by PMRA on this issue has and will result in significant economic losses within the canola industry." This is in relation to just planting the treated seed.

As I mentioned earlier, the PMRA behind the scenes was planning to Special Review lindane. It was a condition of the Claimant's withdrawal of the canola seed treatment lindane products from the market that the lindane review would be conducted and concluded by December 2001. In time, in other words, for lindane to be exonerated, and for the Claimant to return to the market. If I misspoke, it was December 2000, which was the Claimant's condition for withdrawing, and which

10:02 PMRA agreed to.

These documents concerned the buildup and the fallout from the PMRA's conduct of the lindane Special Review. This was an ostensibly scientific review of the uses of lindane to reassess it under international commitments that Canada had made.

We can see here some notes here on an internal PMRA meeting on lindane. Some of them are obscure. I take from the notation of the computer shorthand or signature at the bottom of the page where it says "person Wendy" that this is a document by Wendy Sexsmith, and it proposed to put the document to her when she appears as a witness, but in any event it is an internal PMRA lindane agenda document. And I apologize again for the size of the thought. At this point I only want to turn to the third page of it.

I'm sorry, the second page. It's Slide 43, where we can see where the arrow indicates Special Review, not re-eval, not a re-evaluation, and that the third bullet under that, no Data Call-In, those words come to mean that PMRA is not interested in data. The PMRA is conducting a Special Review without a Data Call-In. It will come to the conclusions it comes to, and they were announced internally by the PMRA in that document we saw where we were going to phase out all uses of lindane. In fact, this is a spoiler. At the end of the Special Review, lindane is out.

10:04 We can see the last bullet on that page, words with maximum coverage. In other words, PMRA, as I interpret this, and obviously the witness will confirm or clarify, the PMRA is debating how to start the Special Review, what it's going to be about, and what they're going to tell the trade because this is January 1999. They haven't yet begun the Special Review. It will begin in March. They're planning it. So, what's it going to be? Is the Special Review going to be a review of lindane, or is it going to be about sort of the health factors or the exposures or the doses or the environment or whatever?

And so, what they're choosing to do is words with maximum coverage. This is speculation on my part. The document is not clear. The witness will help.

One final note on this document, this was a fairly sinister note, the very last one, "close the door on all." You can take, I suppose, wait for the witness to tell us what that means, but we know what happened, and that's what happened.

The next slide is the actual announcement, excerpts from the actual announcement, as it went out, the Special Review. We are now in March 1999. This is the PMRA conducting an extraordinary, frankly, Special Reviews are not something that the PMRA has done very often. The record reflects a couple of times in history.

What's the rationale for the Special Review? Well, the notice told us its persistence, potential for long range

10:05 transport, widespread occurrence in the environment, unconsidered questions with a potential impact on humans, and wildlife of various isomers, so now whereas Canada wanted clarity in '97 about those isomers, it only confuses the debate to talk about isomers with lindane. In fact, apparently the Special Review is going to or is founded on concern about various isomers of lindane. That's a misnomer. Lindane has no isomers. Lindane is an isomer. It is the gamma isomer. If they mean various isomers of HCH, of hexachlorocyclohexane, perhaps, but in any event, confusion is already introduced by the very document announcing this review.

Again, on the next page, we can see throughout. I won't elaborate or dilate on this, but there are environmental concerns throughout. This is what--the announced basis for the Special Review, its scope. We can see again in the last highlighted portion on that Slide 46, we will examine the chemistry of existing lindane products and the extent to which these products may contribute to levels of isomers in the environment. And that's the basis of the Special Review.

Subsequent to the announcement of the Special Review, the PMRA had a meeting with various industry players. We can see that the attendance of that meeting in May at the top of that page, CIEL, a lobby group for lindane, participants, both manufacturers of the raw material, pesticide formulators, and so forth, Uniroyal is there. That is the Claimant, and PMRA is

10:07 well represented.

Now, on the notes, these are notes of Ed Johnson, who will be appearing in these proceedings as a witness as well reporting on what PMRA is stating. In all negotiations in the international fora, lindane is not being considered for ban or phase-out. It's being considered instead for restricted uses. Seed treatment is a restricted use. It's one of the least impactful and consuming, sort of lindane using ways to use it. It's not crop dusting or spraying or leaf or what we call foliar application.

Second, the second point there just under that where the arrow indicates just like the notice said, R. Aucoin of the PMRA outlined the concerns leading to the Special Review, they're predominantly based on international treaties ongoing and residue in the Arctic. In other words, environmental type issues.

So, as far as the trade was concerned, the Special Review is looking at environmental aspects. There was no word as well from the PMRA for data, no additional requests as there would be if the product and its use in the field were going to be examined. There was this.

The top of the next slide, Page 48, Canada apparently, according to PMRA, contains hot spots for organic compounds in the environment, and the issue of Indian health could make this a major political issue. So, this is the cast or the color

10:09 that's being put on the role, function, and intent of the Special Review.

On to the next slide.

This is a Claimant employee as opposed to Mr. Johnson of TSG, Claimant's own employee at the same meeting also commenting. The notes are similar, of course. They're at the same meeting. The politics is very strong to push for reassessment. They will be advising Registrants what data they would need. In fact, the Registrants were never asked for any data because the Special Review didn't depend on data. It turned on other things.

The observation, at least of the Claimant, Rob Dupree, an employee of the Claimant, is in the next slide. Wendy Sexsmith of PMRA made a brief appearance at our meeting and was clearly not interested in the canola residue data that was presented. I suspect she will try to do whatever she can politically to derail momentum to maintain uses of lindane.

So, the body language and the interaction with PMRA at the time was that they weren't being receptive to any data from the industry about any real concerns about the actual use of these actual pesticides in the field.

The next slide relates to another one of the conditions of the Claimant's conditional withdrawal with PMRA. We can see if we go to the bottom of that page, it's an E-mail from Roy Lidstone of PMRA to Wendy Sexsmith. Wendy is

10:10 obviously asked, and we will put this document to the witness as well, but I think it speaks for itself, at least to this degree. If Registrant, says Mr. Lidstone of the PMRA, wanted to re-add canola to lindane product labels, they would certainly have to apply--i.e., put in a submission. I do not think that we would require any supporting data since the use has already been approved.

So, this is if the Special Review were to permit the use of lindane in Canada, then for the mere payment of the fee without any further submissions or applications, indeed, that condition of Chemtura's, of the Claimant, could be met.

Mr. Lidstone concludes, "If we refuse to register, we would need a good reason." Now, in other words, none are apparent yet, and, therefore, the Claimant says that this was obviously the agenda of the Special Review. They would need a reason to refuse to register.

The next slide reflects minutes of an internal PMRA meeting, and showing the status of the lindane review. By now we are in January 2000. We are nine months into the Special Review process. Completed tasks at the bottom of the page, lists of data gaps compiled by each section was prepared but will not be sent to Registrants at this time. Why? I'm not sure, if there was--in a normal re-evaluation, data gaps would be addressed promptly to the industry, and it would be given an expected time to respond because the industry, as is customary,

10:12 cooperates with the Agency in its own interests to make sure that the Agency has the proper data in order to decide whether a pesticide is registerable, safe or not.

The next page of those same meeting notes where various aspects of the study of lindane for the Special Review are being enumerated, we can see that--the concern there is, on the highlighted section, will address gamma isomer only, that's lindane. Obviously if you're looking at lindane, you would look at the gamma isomer. And discuss lack of evidence of interconvertibility of the gamma isomer.

One of the allegations that have been made against lindane--this is a little background--is that while the gamma isomer is put on the crop and obviously has to dissipate into the environment somehow, that would be okay in reasonable quantities that can degrade over time without harming the environment. But some suggestions have been made, and it's in the record as well, that because of the effect of natural forces, changes in temperature or sunlight, that gamma isomer we talked about before, which is lindane, can change into the alpha and the beta isomers that are harmful.

In fact, though, we see from internal notes from the PMRA that they don't have any evidence of that, and so the concern that if you use lindane, well, lindane might be all right or might be sanctified. However, if it converts into alpha or beta, you've got a problem. And if sunlight does that

10:14 or if temperature change does that, then we shouldn't use lindane either because we are effectively salting the earth with alpha and beta, the bad isomers.

On occupational exposure, this is as far as the documents go. A new theme. We saw from the announcement of the Special Review that it was all environmental concerns, trans boundary, indigenous people's diets and so forth that was of concern, but, in fact, occupational exposure relates to the people who treat seed and the people who handle the treated seed. In other words, in the course of their occupations, they come into contact with the pesticide itself.

Industry wasn't aware that this would be until later on, that this would be a focus of the Special Review, and obviously we are in a position to talk about that because they work with seed treaters on a daily basis. They know how the seed is treated, and they know what happens and what measures can be taken to prevent a seed treater or a farmer from being exposed to the pesticide. There's a logical person to go to, and they weren't gone to in the case.

There was some discussion in Canada's material as well that, of course, it would rely on sister agencies like the EPA or the U.K. pesticides agencies' data because it makes sense they are looking at the same thing. However, we see here that although there was a U.K. Report which was unfavorable on occupational exposure in regards to lindane, it was of limited

10:15 use because their methods of estimating risk are very different. Therefore, HED considers completion of this section for the inner report not possible with the information. In other words, they thought they had something on occupational exposure, but they didn't have anything that was usable. As we shall see, occupational exposure becomes the reason, the sole reason, that lindane products get withdrawn by the PMRA from the Canadian market.

Here we are on the next slide, November 5th, 2001. These are notes of a meeting where the outcome of the Special Review is being announced to the industry, the industry being including that you can see a list of participants. The Claimant was part of them. But these are internal meeting notes by the PMRA.

Second bullet, "Registrants were informed the key driver for the risk assessment was the Occupational Exposure Assessment." Now, I can't say that the Claimant was completely blindsided by that, but they weren't consulted at all. It was only late in the process that they even found out that occupational exposure was an issue. We saw it from the notice. It was all environmental concerns, so to say they were not consulted is an understatement.

And yet we see here occupational exposure was considered to be the key area of concern.

Later on, in the next slide, we see the continuation

10:17 of those notes. Participants were informed that the findings of the risk assessment would warrant regulatory action, suspension of registration with the possibility of limiting use could be permitted for one additional season. So, we have gone from international support, sometimes even in isolation, international support for this product. Legitimate expectation would be that Canada would defend the uses internationally, as it had, because it registered domestically, to an outright ban on the basis of a 15-month Special Review, which, as we shall see, came under serious criticism.

Further to that, we can see where the second arrow on Slide 55 indicates, after taking--recall that one of the conditions of the Claimant was that the Special Review would be completed by December 2000. We are in November 2001. The market is not only not going to get its canola seed treatment back, it's not going to get any seed treatments lindane-based back, and the industry is given a one-week period to comment on this assessment, which they received no notice--minimal notice of later in the day and no interaction with or no communication on or no Data Call-In in regards to. That deadline was subsequently extended to a few weeks. Both sides' materials reflect the exact number of four, five weeks that were allowed.

The industry, of course, didn't take this well, and this slide, more as a marker for the Tribunal, indicates, as you can see at the bottom of the first paragraph, not the

10:19 arrow, but above that, we are submitting consolidated comments. The industry got together and put together comments criticizing that Special Review. It usefully points out many of the deficiencies in the Special Review. We can see that they're itemized there and given in much greater detail in document that's attached to this.

And indeed, the definitive word on the Special Review's deficiencies was given by the Lindane Board of Review, which we will also turn to in a minute.

Now, we will recall that another one of the conditions of the Claimant's voluntary withdrawal was maintenance of registrations on other crops. The lindane issue, and the withdrawal related to only canola seed treatment. But in fact because of this very flawed special review, PMRA terminated all of the registrations, not just for canola. Anything with lindane in it was done. This slide here shows the letter from PMRA in regards to those listed products at the top, where PMRA is looking for--these are all the lindane-containing products of the Claimant.

We can see where the arrow indicates. As a result, the Agency is determined that termination of lindane products is warranted. Such termination could be effected through phase-out by suspension of registrations or voluntary withdrawing. This is quickly on the heels. They're not dragging their feet anymore the way they were with the Special

10:20 Review being a year late. This is within a month of the Special Review result, and they are moving fast. They want to terminate it all. They are demanding.

They offer in the next slide. You can see that they offer the Claimant, and this letter went to all Registrants, the Claimant's competitors as well, "You were informed that the PMRA's completed an assessment of lindane," as noted in the beginning of the letter, and determined that termination is warranted. They were invited to voluntarily withdraw, failing which they would be terminated. So, obviously, the voluntariness of that withdrawal is illusory.

You can see that at the same conclusion of that same letter on the next page. If the requested information is submitted on time, ask that you confirm your intention to voluntarily discontinue. The company does not. This was the letter that they were to use in order to do so, a form letter, no slippage. They chose not to.

So, we can see that the arrow indicated in that letter of February 11, 2002, that five other products are Pest Control Products containing lindane are being terminated. This is not just in relation to canola. This is all of the registrations of these products terminated cannot be used basically anymore in Canada.

This is the termination of the next three. I mentioned at the outset that there were eight products,

10:22 lindane-containing products by the Claimant.

At the conclusion of that letter in Slide 64, it's apparent that that's what that's about. Under Canadian law, the pesticide Registrant, whose registrations are suspended or terminated, has a right to an objective review of that decision in view of the rights and the economics at stake. The Claimant invoked that right and invoked that right on multiple occasions and asked for a Board of Review to review the Special Review. There was--it had to ask four times. It took years to get that Board of Review established. When there was any movement after the Claimant's request on that, and again there are chronologies and the records reflect that all of those requests and the lack of response from PMRA, from the Minister of Health to which the PMRA Reports on that issue. When any movement was given by the Minister of Health on that issue, it was to ask PMRA to appoint the Special Review Board or to constitute it and therefore be a completely illusory form of review, where the reviewer itself is reviewing its own behavior, and the outcome is fairly predictable.

We can see from the next slide at 66 the Claimant had to go to Federal Court in Canada in order to prevent the PMRA itself from appointing its own Review Board, to require the Minister to afford the Claimant its rights to a Review Board. That's Point C, but the second arrow that indicates on that slide, this is a Court document, Federal Court notice of

application that was filed in the matter after the Claimant's extensive and prolonged efforts to get a normal right it had to have the Minister appoint an independent Review Board and to scrutinize that Special Review to see whether it was flawed or not.

The third bullet, Applicant's costs. Costs obviously in Canada, as in most jurisdictions, are awarded to the successful Parties, as everyone of course knows, and there has been suggestion in Canada's material that Chemtura, the Claimant, was bringing multiple claims and dropping them randomly, and the purpose of them was unclear, but so I wanted to exemplify with this one that it was, in fact, the difficulty it was having by getting responses from the agency and from the Minister to have its rights addressed that was behind some of these.

This is the order of the Court, indicating that--I'm going to the next page, which is the actual terms of the order, where the judge of the Federal Court requires the Parties to Report to him on the progress that's being made because of the extraordinary delays in appointing the Board of Review by the Minister. So he's calling them to account, in essence. You come to my office and tell me what progress you have made on this. Obviously the implication being there hasn't been any progress, and you are going to have to answer to me if this Board is not constituted promptly.

10:25 Canada has also made assertions that the Claimant would bring Court actions only to discontinue them, but--and this document is put in for your consideration to show that while they discontinue, they were discontinued because in this case, in this proceeding, it was a discontinuance because the Review Board was finally appointed. Nevertheless, you can see that there is a cost Award there in favor of the Claimant by the Court in recognition of the extraordinary efforts that it had to get to receive its entitlement to a Review Board.

Finally, on October 2003, we recall that the results of the Special Review came out in November of 2001.

And in October of 2003, the Review Board was established by the Minister of Health according to--in terms that didn't involve for the PMRA staffing of the Review Board, in other words, reviewing its own decision.

We jump ahead now to the end of the Review Board proceeding with the conclusions and recommendations of the Board. The Tribunal, in the material, has seen, and no doubt will hear in the course of the hearing conflicting accounts of whether the Review Board is critical or not. The Claimant relies on the very words of the Review Board which, while making statements such as "the generally acceptable" or "principles were applied" and this sort of thing, came out with very precise and very pointed criticisms of that. In particular, I want to turn to one in particular. First of all,

10:27 the Board, as you can see on that Page 71, "the Board feels that the PMRA should have informed interested Parties when its focus shifted to occupational risk." Its focus shifted, as we saw from the change from the announcement to the result. There was no--in the result, there was no discussion of environmental impacts, indigenous diets, or anything like that. They stopped at the occupational risk indictment and went no further.

Then the next page, the highlighted section, "In the context of the Special Review, the lindane Special Review, the Board feels that the opportunity allowed by PMRA for interested Parties following the release of the risk assessment"--that was the occupational risk assessment--"was less than sufficient to allow for adequate consideration of mitigations--mitigation measures." Mitigation is obviously what measures can be taken if there is an occupational exposure issue in terms of a pesticide, what measures can be taken to put protective equipment on the handler to address those concerns. It's the obvious approach, and it's the routine one in pesticide evaluations.

Since that was the reason the Special Review condemned lindane, and the only reason, this criticism by the Board of Review, by the independent scientists reviewing the Special Review, is fundamental. It is saying the only leg that the Special Review stands on to terminate lindane is flawed, and therefore the condemnation of lindane is flawed. Whether there

10:29 is general statements in the Board of Review saying you're a nice Agency, you did a nice general scientific job, doesn't go to the very point that the only use of the Special Review for the PMRA to terminate lindane was in the very section--there were others, but the core one was in the very Section that was used by the PMRA to indict lindane.

I'm going to jump ahead to Slide 74. The whole Lindane Review Board section on recommendations repays reading because of the analysis it does. One of the--one of the things Claimant wanted to avoid in this hearing is relitigating the toxicology around lindane. I know less than would fit on a flea beetle's back about toxicology, and in any event, better people than me have spoken in the Lindane Review Board and in the various documents in the record as to the science on lindane. This is not what this is about. This is about due process and fair and equitable treatment. This is about property being taken away without good reason.

Be that as it may, we let the Lindane Review Board conclusions speak for themselves.

One of the most harsh criticisms by the Lindane Review Board of the PMRA Special Review was the use of uncertainty factors. Uncertainty factors are multipliers of risk that are used obviously where in cases of uncertainty, as they should, agencies want to err on the side of caution, and so if they are unsure about something, they multiply the potential risk. The

10:31 number you use to multiply that risk determines the outcome. If you multiply it by a small number, it doesn't magnify the risk, and therefore the danger or apparent or perceived danger significantly. The larger the number you use, the more you make likely the condemnation by increasing the likely risk for those unknowns or for those possible risks or possible dangers of the given pesticide. We can see here from the highlighted section that Canada used an uncertainty factor, and we don't need to go into more detail at this point in the technique on that, but application of the additional--an additional 10 acts, 10 times, tenfold uncertainty factor by PMRA was the driver that took the MOE, the margin of exposure, the allowable exposure to that product to 1,000 times effectively rendering lindane unacceptable for use.

If applying an additional 10 X uncertainty factor without fully understanding what that means, but if applying that made lindane available for use, it predetermined the outcome. If the selection of that additional 10 X was a fair thing to do, fine. Lindane Review Board thought otherwise. The EPA thought otherwise, and the PMRA in the Lindane Review Board proceedings itself admitted otherwise. But it's using that 10 X basically condemn lindane from the start, ab initio, as the lawyers say.

Further condemnation in regards to toxicological end points on Slide 75. They are manifold. They are repeated at

length in the Claimant's submissions, and I won't belabor them here.

So, Canada is faced with--under Canadian law, if the Lindane Review Board does not trump and cannot overrule directly the PMRA, it can only recommend, but its recommendation--an Agency flaunting its recommendations would have to have a reason and would be exposed for questionable motives if it didn't respond. So, as we see--as we will see, Canada did respond to that, the criticisms of the Lindane Review Board. To the extent Canada will take a position that the Lindane Review Board didn't criticize them, we will have to wonder why they revisited the whole Special Review thing in response. In any event, they did.

The record shows, as on Slide 77, that Canada's response to the Lindane Review Board was one, though, of not good faith. It was not a scientific inquiry revisiting, oops, the mistakes in the Special Review to restore science as the determinative whether the lindane pesticide products should be used or not.

We can see from the indicated portion of that memorandum to the Associate Deputy Minister, the senior official in the Department of Health, that Crompton filed Notice of Claim under Chapter 11 of the NAFTA, and here we are, involving similar issues with the Lindane Decision. The timing and substance of the response of the Review Board Report could

10:34 have an impact on the NAFTA Claim.

So, the PMRA does not have its eye. We can see that this is from the PMRA, Health Canada/PMRA, on the upper left. It does not have its eye on the science. It does not have its eye on a good faith re-evaluation of lindane science, lindane chemistry, lindane even occupational exposure. What it has is an eye on us in this room today.

Again, internal document from the PMRA from John Worgan, who we will be fortunate to be able to speak to later in this hearing as well. Moving to the second page of that, Mr. Worgan asked for recommendations from counsel about what to do, should we respond to the Board or not to assess the impact the next steps of re-evaluation could have on the Registrant claims to the Federal Court and the NAFTA Tribunal. The recommendation of both the Trade Law Bureau and Justice is to complete the assessment. This would substantiate, clarify and substantiate the position taken by PMRA in 2001. This wasn't a re-inquiry to see if there was science. This was a fixer upper to confirm what they had already found but what had already been criticized by--I beg your pardon. It was merely seen by the PMRA that to affirm something they had already found.

The conclusion, again, was a foregone conclusion is the bottom line on that: Support the government's position in Court. Claimant said--

ARBITRATOR CRAWFORD: When do you say the breach

10:36 occurred in this case?

MR. SOMERS: The claim is about two separate claims. One is under Article 1105 of the NAFTA, which is regarding the minimum standard of treatment. The other is under Article 1110, regarding expropriation or measures tantamount to expropriation. Given the different focuses of each of those heads that are alternatively pleaded by Claimant, we would say that termination of the business in terms of the Article 1110 Claim would have been--in other words, in February of 2002, would have been the breach in regards to that. That ended the sales of all Lindane Products, so by then certainly it was game over for the investment for the business, the lindane products business.

In terms of the 1105, your question is apposite and difficult. It is a pattern of conduct which in the Opening Statement I'm skimming the surface of to show that fair and equitable treatment at every turn was denied the Claimant. It began as a trade issue, a PMRA managed voluntary withdrawal for a specific product, specific destination, was converted into an all-out indictment of lindane. It became--it was reviewed, the science was flawed, it was objectively condemned as flawed, yet satisfaction was never obtained. The conditions under which the Claimant withdrew were clearly laid out, clearly agreed to by the agency, and many clearly breached.

As far as the exact moment of when a breach occurred,

10:38 when fair and equitable treatment is denied, I hope you will find this position by argument, by legal argument, but because it's a pattern of conduct, I would again have to go back to when the business was terminated, even though--and never allowed to be cured, so the standard of treatment which is afforded the Claimant was--because it was a continuing pattern, it never afforded the relief that ending the ability to sell in Canada would have required, had two or three years--this was in 2002--had two or three years passed, obviously, and then business would have been restored to the degree adequate or satisfactory to the Claimant, we wouldn't be here. So, it's not to say that a breach didn't occur under 1105 or even that it's not identifiable, but the injury certainly occurred in 2002.

The lack of effective recourse to the Claimant is the foundation for the Claim, but the injury we would have to say is 2002.

I might just add as well that--I don't want to use up my Opening Statement time, but as my friend observed earlier at the opening of this hearing, we obtained the opening--demonstrative exhibits of Canada on a timely basis yesterday morning at 10:30. In it, we saw reference to an event in a document that are not in the record. They are the re-evaluation notice of PMRA, which only came out, I don't even know, actually, but it was on their Web site yesterday, and

10:40 reference is made to that in the chronology provided by my friend.

The Re-evaluation Note is a message to the public for comment on where the PMRA is as a result of exactly the things we are looking at now, which is the Lindane Review Board sends PMRA back to say do your Special Review again. We recommend you do that. John Worgan talks to his lawyers, and they say, oh, okay, we better do this and substantiate what we said in 2001, because it will help this case.

And the re-evaluation note is now--which my friend has averted to in his demonstrative exhibit--is the publication and the notice to the public that this is what the PMRA is going to come out with, and please, let's have your comments from the public at large.

And so, we would actually say, given the content of that re-evaluation notice, which we read late yesterday, that the pattern of conduct, which is evidence the breach of the minimum standard of fair and equitable treatment of the Claimant is ongoing. It's ongoing today.

I hope that is at least a partial answer, and I hope my legal argument is a little more coherent.

ARBITRATOR CRAWFORD: We will undoubtedly come back to it.

MR. SOMERS: Thank you.

As we saw from the documents that I was putting in

10:41 earlier in the Opening Statement, part of the undertakings of the PMRA to the world, to the industry, were that they would facilitate access to replacement products. They are the gatekeeper. They control access to replacement products. They control access to pesticides. Without their blessing, a pesticide manufacturer is out of business.

This portion of my Opening Statement goes to the discriminatory and the difficulty, the discrimination and the difficulty that Claimant had in getting its replacement product registered with PMRA. The slide I'm turning to here is, I guess--I'm going to the second page of it because that's the operative part. On Page 82, this is a document for November 26, '98. We'll recall that that was the time the canola seed treatment issue was in full flower as a trade issue, and the industry discussions were ongoing about can we reach a Voluntary Withdrawal Agreement, and what will the terms be for the industry at large? We can see on the highlighted section there, stakeholder meetings to be scheduled for June and October 1999 to review progress toward the approval of lindane replacement products. Subject to the approval of Registrants, stakeholders will discuss progress in the following areas.

Now, jumping, I'm sorry, to the next page--I'm sorry, no, I'm going to stay on that one. These are definitional issues. A, B, C, and D are the various types of replacements

10:43 that are going to be considered for potential approval by PMRA. One is approval of seed treatments in which lindane is removed and contain fungicides only. I'd explained before that pesticide products of the Claimant and also of its competitors contain both fungicide and pesticide both for the fungus and for the bugs that greatly facilitates application, speed, economy, and safety, so the combination is the important one, and, indeed, was the profitable business line of the Claimant.

The second category of replacement products--I'm sorry, in the first category, just take the lindane out, and we've got just a fungus product. The registration of pesticides is a very precise science. If the combination of two things are approved, you take one out, you need a separate approval. It's not enough that something has been approved or even approved for that use in combination with something else. If you take something out, you still need a separate approval. Every single formulation requires its own, for every use requires its own blessing.

So, it's not as simple as taking a lindane out and then relabeling it and putting it back on the market. PMRA would have to approve that. And here it undertakes to do so.

Second, approval of seed treatments in which lindane is removed and replaced with active ingredients that are currently approved as seed treatments for other crops or currently approved for other uses such as foliar applications,

leaf applications in canola.

So, to an industry person, that would be understood as lindane, the insecticide, is removed and replaced with another insecticide that is already being used as a seed treatment on another crop. It's not a brand-new insecticide that somebody just invented. So, presumably that would be easier to approve of as a replacement product because the science, the chemistry, the toxicology of it has already been reviewed in relation to cabbage seeds, just not canola seeds, for example.

The third one, approval of new active ingredients which will replace lindane in canola seed treatment, so there it's not something that has been approved for another cabbage use, a brand-new molecule, insecticide, where lindane is taken out of the cocktail and this new one is put in.

And then the fourth category is where PMRA and EPA can manage to work together and jointly review. Saves each Agency work, one can concentrate on one and one on the other.

But so the replacement products were understood to be, if you take out the first replacement, you take out the lindane, you just register the remaining fungicides that are in the product. The second one, existing approved but not approved for canola insecticides, replace the lindane. The third one, brand-new molecule, brand-new insecticide, replaces the lindane.

Now, these were the understandings of the industry

about what a replacement product was. And we heard all of the commitments and we saw them all as far as facilitating access to replacement products. So there wasn't any ambiguity about what a replacement product is. It was one of those things, and if it's needed, the next slide, 83, the highlighted section, "PMRA is committed to working with growers and Registrants to facilitate"--I'm sorry for the speed again--"to facilitate access to alternatives." Facilitating, it is a gatekeeper, for access at all, so its facilitation is crucial, particularly not to leave a gap in the market.

This is a competitor of the Claimant also concerned with this issue, not where the highlighted section is, but where the arrow points to. "We trust we can rely on the PMRA to render a regulatory decision promptly to enable us to supply this replacement product to our customers for the treating season." People are concerned not only to lose their foothold in the market, but to leave their customers and their customers' customers, seed treaters and then the growers in jeopardy without an effective replacement product.

And this is a letter from the Executive Director of the PMRA to the Claimant. The Claimant is asking for expedited review of its product, and we are in June of 2000. The PMRA writes back, "The consideration for special priority review within Canada for lindane replacements for canola seed treatments was a onetime opportunity, not an ongoing situation.

That is why your product, not having been part of the original opportunity, falls within normal management of submissions policy time lines, 12 months." This is in June of 2000 that this is written. PMRA had already secured the voluntary withdrawal. It had promised before that to the trade, to the world at large, that it would facilitate access numerous times to replacement products. For the first time the Claimant gets to hear that, oops, that was a onetime opportunity. We have your voluntary withdrawal, and now as far as the representations that we have made to the industry consistently since 1998, that was a onetime opportunity, the first time you will see these words in this record certainly that I have. I may have missed them, grateful as someone would point that out.

The reason the PMRA was writing in that slide to the Claimant was because this submission, as you see it in front of you on Slide 86, had gone in in March. Gaucho CS Flowable. That was a replacement product of the B type that we had just seen in the definition. It was--these products had been approved for other uses. There were no new invented active ingredients here, but they hadn't been used in this combination for canola seed treatment, and so Gustafson, on behalf of the Claimant, was submitting an application for registration of this lindane replacement product.

It points out there, and you can see that in the subject matter, lindane replacement for Vitavax RS Dynaseal.

10:49 Vitavax RS Dynaseal was one of the lindane products that had been peremptorily terminated by PMRA.

Also indicated that it is a Category B.2.6 submission. One of the Claimant's witnesses and no doubt Canada's will be able to speak to what that means in terms of the jargon as far as what one would expect the time of such a submission to take, why it's that category, and how it differentiates itself from simpler or more complex applications.

In Canada's materials you will see reference to Gaucho, Gaucho 75, Gaucho 480. That is to be distinguished from Gaucho CS Flowable because Gaucho CS Flowable is the replacement product that contains both the insecticide that lindane used to do and the fungicide combination, and therefore has all of those benefits and those market advantages that I described.

Canada, in the materials and in its pleadings, points out that it approved Gaucho in the previous year, but that was a different product. Gaucho 75 is nothing like Gaucho CS. It doesn't contain a fungicide. It is an insecticide only. And as we saw from the replacement product definitions, it is not a replacement product. It's an insecticide. The replacements again were fungicide only with the lindane-removed. Insecticide-fungicide combinations of pre-approved for other use as molecules, and new insecticide with fungicide. Those were replacements. The Gaucho that had been approved in 1999

10:51 for export purposes by the PMRA was just an insecticide. It wasn't ever understood as a replacement product. Important distinction because obviously not only is the Claimant ejected from the market within two years here for all products, but stop manufacture of the lindane product under its Voluntary and take it for canola own use by 1999, so predating this application in front of you here. That's been taken away from it, and it needs a replacement. It needs a replacement to service its customers, to keep its customers, and because that's its business. As it turns out, it doesn't get one for many, many months. We will see that this is the continuation of that previous letter on Slide 87. Gaucho CS Flowable is a lindane replacement product as per the definition understood by everyone. One would have expected this product as well to not pose as many obstacles as a brand-new active ingredient insecticide because as we can see later in that letter on that page, the product is a joining of two separate Liquid Seed Treatments Gaucho 480, an insecticide, Vitavax RS Fungicide, into one, but those had been approved for other uses already. These were no strangers to the PMRA. Their combination and their use as canola was the novelty, was the only novelty here.

The next two slides are a comparison of the time line it took for--that was required for the approval of the Gaucho CS product and approval of the competitor. On this slide here--I'm running out of time to go into detail on these more

10:53 opaque areas, but what we see is the actual, the standard types of time lines that are required for the PMRA to produce statistically to approve products. We can see at the top of the columns Helix Xtra, Helix, those are competitor products that I'll turn to in a minute, and then Gaucho CS and its standard. What you would have expected based on average performance by the PMRA and approval times, depending on the priority or the category of submission that each were, A, B, we recall from the letter for over Gaucho it was a B.2.6, that's why it's under that B column. For purposes of Opening Statement, I'm going to turn to the second page, which was the actual result, how long it took based on the normative standard for the approval of both Gaucho CS and a competitor. The competitor called Helix Xtra and Helix, the same product that's just twice as dose in the Xtra, was by a manufacturer called Syngenta that didn't even have a lindane product, so it wasn't in any sense a replacement, a lindane replacement that was being--it was a lindane replacement because it was used for flea beetle on canola seed treatment in that sense, but it wasn't a replacement in the sense of any obligation or undertaking that PMRA had to the company because that company did not have any lindane products.

In any event, we see there actual days for approval, 745 for the Helix Xtra, 378 for Helix, 848 for Gaucho CS. What we would have expected, given the different category, Helix

10:55 contained--it was that third category of replacement product for a brand-new insecticide that hadn't been approved for other uses. We can see that the standard approval time if standard practice and policies of PMRA had been followed, and that's sort of the third cell from the bottom, would be double the amount of time that Helix Xtra actually took, 1449 compared to 745. It would have taken twice as long. If we go over to the right as far as Gaucho goes, 848 to 462 because it's so close to double the time for Gaucho, so half for one and double for the other, and one can appreciate that if your product, your lindane product has been taken off the market and you're waiting that long for the replacement, damages ensue, economic injury ensues, and it certainly did.

Not only would the first person up have an obvious advantage, but the longer you're the first person into the market with the replacement product now that lindane, the industry standard and the growers and completely standard product, by far, has been removed, the first player in will have the cat bird seat as far as subsequent events. And the longer that first player, that first mover is in there by itself, the more security its first place position would be.

The various calculations on that slide I won't have time to go into now, but the witness for Claimant, John Kibbee, will be able to speak to when the time comes.

I had mentioned earlier that I was going to talk about

10:57 this. This issue arose as far as the public consciousness, as far as the Claimant's consciousness as a trade issue. It was the advantage the Canadian canola farmers had with access to the Claimant's products primarily and its competitors in Canada that was not available in the United States. The canola demand grew in the United States faster than the canola registrations could grow or were pursued by all of the players involved, and so that tilted in the perception of the U.S. growers, the playing field.

As we recall from the Commissioner of Agriculture of North Dakota, he said give us a tolerance or stop the Canadians from using this material, and so there were efforts in the U.S. at the EPA by the industry, both the manufacturers of lindane and the pesticide formulators like the Claimant, to have a tolerance and a registration issued by the EPA and make this problem go away in that way. In other words, to give access to the U.S. growers. Either they could import seed treated in Canada with a pesticide for planting in the U.S., or they could source that pesticide themselves, treat their own seed, and plant them themselves. But in any event, it would be a level playing field because access to that cheap and effective pesticide would be available on both sides of the competing border.

The Claimant's case is that Canada was pursuing an agenda for the phase-out of lindane. I think the documents

10:58 sort of point to that as we saw at the outset of the Opening Statement. PMRA and EPA were in communication. They came to different results on the science, but that wasn't for lack of PMRA trying. The PMRA--and we will see monitored what the EPA was doing, worried about what the EPA was doing, and tried to influence what the EPA was doing in order to keep that border closed because that trade issue was a good opportunity to phase out lindane entirely. It was never confined to just let's stop canola seed treatment use of lindane. As we saw back in '98, it was, in principle, a complete phase-out of all uses of lindane.

Canada has also represented that this was an industry led voluntary withdrawal, but we can see from the documents and the correspondence back and forth, and from that document here, the Uniroyal letter to canola growers has been sent to the U.S. by me. This is a note from Mary Jane Kelleher, whose name appears. She's not appearing as a witness, but she's a key player in the PMRA as far as relations and communications with the EPA. Her name appears routinely in the documents around this time to another individual in the PMRA.

The Uniroyal letter to canola growers has been sent to the U.S. by me, and the PMRA coached response of the Canola Council was sent to them by Wendy. In other words, we saw that letter from Goldman to the Canadian Canola Council, and there were communications between the Canadian Canola Council and the

11:00 EPA, and the PMRA was managing the Canola Council's correspondence with the EPA behind the scenes. As we can see here, the EPA has been receiving Uniroyal inspired letters pressuring them to make a decision on registering lindane for use on canola. As Mr. Crawford pointed out, there were efforts not just to get a tolerance, but to get a registration on the U.S. side. Yes, Uniroyal, the Claimant, was pressing the EPA for registration. That would make the problem go away. That would remove the excuse that PMRA--although the Claimant wasn't aware of it at the time, it would remove the excuse that the PMRA had to deploy its resources towards banning lindane outright, using the trade issue as a cover to withdraw it from the important crop canola first and then peremptorily terminating after a flawed Special Review.

This is a TSG letter to Lois Rossi and James Jones of the EPA. TSG was a--Mr. Johnson of the TSG will appear here to testify later in the week to speak to as a lobbyist representing the interests of lindane manufacturers and lindane pesticide manufacturers to the EPA.

PRESIDENT KAUFMANN-KOHLER: Mr. Somers, sorry for interrupting, you have about five minutes left. I mean, I will not cut you off precisely after the five minutes, but so you have, you know where we stand.

MR. SOMERS: I appreciate that. Thanks.

In February '01, TSG on behalf of lindane

manufacturers, manufacturers in other words of the chemical lindane, but also subsequently of the Claimant and other manufacturers of the formulated pesticides, was pressuring the EPA to issue it a registration, and it was effective at doing so, as we will see, up to a point.

As you can see there, TSG is writing on behalf of our client Inquinosa, manufacturer of the lindane active ingredient. Indeed, we seek issuance of the canola tolerance in spring 2001 so that lindane products can be formulated and distributed in time for canola planting season in Canada. And so if that were to issue, there would never be a gap in the ability of the Canadian industry to use lindane canola seed treatments because that excuse that they will be stopped at the border would go away by this time.

These are the requests that TSG makes in order to get EPA tolerance and approval. Canola seed treatment be included in the re-registration of assessment. Lindane was undergoing a re-registration assessment at that time for the existing registered uses, and I'd mentioned earlier it was registered already for 19 uses. PSG is asking, well, piggyback canola onto that, and then we won't have to go through this process again. As you are automatically ordinarily reassessing lindane anyway, do it with the canola use added with these other ones we don't use removed, and we will get it all sooner. We are in a hurry here because of events up in Canada.

11:03 Second point at the bottom of the page, we further request that if the risk evaluation is favorable for canola use, canola tolerance be issued immediately following such risk evaluation and not after finalization of the lindane Re-registration Eligibility Decision, and so again they're looking for a stopgap measure, a temporary tolerance, so that the border will not be shut to them so that Canada will not invoke that as an excuse to withdraw lindane on the Canadian side.

The third bullet, upon issuance of the canola tolerance, and this goes to his to Mr. Crawford's question, we request that the pending registration applications for the two end use products be processed. So, first give us the--I'm sorry. Upon issuance of the canola tolerance, we request that the pending registration applications for the two end use products be processed. So, give us the tolerance so that we can continue to trade into Canada, and then process those registrations to sort of close the circle and complete the requirement, but with the tolerance in place the Boarder will not be closed to us.

We can see there as well in this day issuance of the U.S. canola tolerance, the reason they want it, and the fact that it is a trade issue and it's a competitive issue. That's what it was about.

This is the response, and they're saying, as you see

11:05 at bottom of the page, while the decision need not wait until the re-registration eligibility decision is issued, we must finalize the risk assessment, so we will not give you a tolerance before the risk reassessment is finalized is basically what they're saying there, but they're responding and they're willing to do what Mr. Johnson requested.

Conference call between PMRA and EPA. I'm very close to the end of my submissions here, so we can see that in these PMRA notes under Roman numeral three--well, under the objective first to discuss major differences in the outcome of PMRA EPA assessments. We saw the PMRA assessment in the Special Review. This is July 30, 2001. The EPA has a major difference in that it found ultimately that there is no Occupational Exposure Assessment risk of concern. If there are any, they can be mitigated. In other words, put gloves on or put a mask on. And whereas in Canada that was the very reason for terminating all lindane registrations of the Claimant. So, they have got a problem because the other Agency, which has some credibility, is not finding the same thing they are, and that's what this is about.

Going on ahead. I'm jumping here to Inquinosa, to EPA abandoning various uses. Routine. Inquinosa is saying we are not going to support uses on crop X, Y, Zed. That reduces the environmental burden. That reduces the risk that the EPA would have to build in because it's only being used in smaller

11:07 quantities on certain selected crops and there's no chance of it coming in on the broccoli U 8, it's only in the canola, and therefore your exposure to it is lower, and therefore the risk is less, and therefore so on, it's much more likely to be registered. This happens all the time. As new pesticides are created, uses, older uses like this are simply abandoned by the manufacturers. They're too expensive to maintain in any event. We can see the large number of craps that were being walked away from by Inquinosa.

This is the 2002 RED, which is a matter of the dispute as well going to--I'm sorry, going to Page 102, EPA has determined, this is a conclusion of the EPA, this a year after, the year after the Special Review of Canada which condemned lindane for occupational exposure.

I'm just jumping to the last sentence, Mr. Aidala for the Claimant will be able to speak to this more fully later, but in summary, EPA finds that the currently registered lindane seed treatment products would be eligible for re-registration if the Registrants make the changes to the terms and conditions specified in this document and provide required data, and EPA will be able to establish all required tolerances for residues of lindane in food.

As it happened, an addendum was published with this in 2006. The addendum was published after the manufacturers of lindane pesticides in the U.S. had voluntarily withdrawn on

11:08 that side. The Claimant's interest in getting this was for Canada. It was in order to be able to some to continue to sell in Canada. By 2006 when the Claimant walked away from its U.S. registrations or from its U.S. application for registration I should say and its registration, the market in Canada had been destroyed. We had the 2002 terminations. We had the voluntary withdrawal with conditions in 2001, the breach and breach and breach of conditions, 2002 terminations under the flawed Special Review, delays in establishing a review of that in the Lindane Board of Review. Finally an outcome in 2005, the Lindane Review Board vindicating our concerns about that Special Review.

The reevaluation for substantiating the 2001 decision by the PMRA, the market for the Claimant's pesticide products was long dead. There was no point in pursuing the lindane registration on the U.S. side. Its bread and butter had been the canola industry in Canada. It had other uses as well, but the core that was the Canadian canola industry with its millions of acres of product, and that's our story, in a nutshell, in a two-hour nutshell, with your indulgence. As I said in response to Mr. Crawford's question, our claims are twofold, 1105 and 1110 of the NAFTA, minimum standard of treatment breaches, expropriation or measures tantamount thereto. It was the pattern of conduct exemplified by the material that I have very rapidly run through on the surface

11:10 over the last two hours which, in Claimant's Submission establishes the breach of that fair and equitable treatment standard. Canada was bound to afford to the Claimant's lindane business in Canada.

We will be elaborating on this both on Legal Authorities and on how these facts support our claims of fair and equitable treatment in our closing statement, but absent questions, that is the Claimant's Opening Statement from this morning.

Thank you.

PRESIDENT KAUFMANN-KOHLER: Thank you.

Do my co-Arbitrators have questions at this stage?

(No response.)

PRESIDENT KAUFMANN-KOHLER: No, neither do I. There will certainly be questions later.

I suggest we take a break now. Let's take 20 minutes and start again with Canada's opening argument.

(Brief recess.)

PRESIDENT KAUFMANN-KOHLER: Fine, so we can resume.

I made a mistake when I mentioned the time allocations over the entire hearing, just for the record. You have not corrected me, but you have noted that I made a mistake. I saw it on your faces, but I didn't know what was wrong.

Anyway, the Claimant has 20 hours, and the Respondent has 16, just so there is no confusion on that, and I apologize.

11:34 Now, Mr. Douaire de Bondy, you have the floor.

OPENING STATEMENT BY COUNSEL FOR RESPONDENT

MR. DOUAIRE de BONDY: Thank you, Madam President.

I'm tempted to start my Opening Statement with a quote from Haydn, who said in one of his oratorios, (speaking in German), which is air yields and fair order takes its place, and that's a bit the sense I have right now of having listened to the Claimant this morning.

I'm going to begin my statement with a very brief overview and summary of the basic facts. I will then consider the Claimant's case and Canada's response from the perspective case of Article 1105.

I will make short remarks on Article 1103 and the issues relevant to 1110, and finally I will finish with a word on damages.

So, first, with my brief overview.

PRESIDENT KAUFMANN-KOHLER: Before you start, I should have said that earlier. Do you want to break in the middle for the lunch break, or do you prefer going two hours?

MR. DOUAIRE de BONDY: I think that a break in the middle might work. Would you mind--

PRESIDENT KAUFMANN-KOHLER: You have to decide what is a good time in your structure, of course.

MR. DOUAIRE de BONDY: Yes, yes. So, it might be a little bit more than an hour; it might be a little less.

11:36 PRESIDENT KAUFMANN-KOHLER: Okay.

MR. DOUAIRE de BONDY: So perhaps if I get to about an hour from now and we can--

PRESIDENT KAUFMANN-KOHLER: Then you see where you stand?

MR. DOUAIRE de BONDY: Yes.

PRESIDENT KAUFMANN-KOHLER: Absolutely.

MR. DOUAIRE de BONDY: All right. So, first with my brief overview.

On May 9th, 2009, over 160 states met and confirmed unanimously that lindane should be added to Schedule A of the Stockholm Convention on Persistent Organic Pollutants. Schedule A lists those pollutants, which due to their toxicity, long range transport and persistence have been specifically designated for elimination internationally. Lindane in this way joined the ranks of the original "dirty dozen."

May 2009 capped off 40 years of mounting domestic and international action to address the risk lindane poses to human health and to the environment. Over this period, lindane use has been progressively restricted and eliminated around the world.

The measures at issue in this arbitration are those of Canada's Pest Management Regulatory Agency, or PMRA, and they're concerning lindane. The PMRA is Canada's national pesticides regulator. No pesticide may be used in Canada

without PMRA's approval.

PMRA's primary mandate is to ensure that pesticides used in Canada are safe in that their use doesn't present unacceptable risks to human health and the environment. Every pesticide registration granted in Canada is conditional upon PMRA's continuing belief that its use does not present unacceptable risk. Apart from risk, the PMRA is mandated to register pesticides on the basis of their merit and value; in other words, whether their use is of benefit to Canadian agriculture and, by extension, to Canadians.

The Claimant's allegations in this matter relate to two sets of events:

First, PMRA's determination through a scientific review that lindane use poses unacceptable health risks;

And, second, the determination of Chemtura's main client, lindane clients, Canadian canola farmers, that they no longer wish to use this pesticide due to the risks it presented to its business.

Canada submits that a NAFTA Claim arising out of either of these events is improperly founded and must fail. In brief, here are the reasons why Chemtura's claims should be rejected by the Tribunal.

The Article 1105 Claim must fail because Chemtura has relied on an incorrect legal standard. Its arguments ignore the law applicable under Article 1105, which is the customary

11:38 international minimum standard of treatment of aliens. In any event, Canada will demonstrate that its treatment of Chemtura has been fair and equitable throughout. As Canada has demonstrated in its submissions and as its witnesses will confirm in this hearing, the PMRA's review of lindane was prompted by legitimate scientific concerns, was conducted through a legitimate scientific process, and reached scientifically legitimate conclusions.

The evidence of our witnesses will also confirm in terms of the industry-led voluntary withdrawal, that the agreement was, indeed, voluntary, that the PMRA took an appropriate role, that the PMRA treated the Claimant fairly in relation to this agreement, and that the Claimant took the benefit of that agreement.

The Article 1103 Claim must fail because Chemtura argues for an interpretation of the most-favored-nation provision that is unprecedented in the context of NAFTA and wrong at law. There is no difference between NAFTA Article 1105, that standard, and the fair and equitable standard found in Canada's post-NAFTA BITs. In any event, the same fair and equitable treatment has resulted for Chemtura.

Finally, the Article 1110 Claim must fail because the Claimant has not been substantially deprived of its investment. The investment, in this case, Chemtura Canada, has not been rendered useless, it has not been brought to a standstill, it

11:40 has not been neutralized. The Claimant is fully able to use, enjoy, and dispose of its investment. In any event, this Article 1110 Claim fails because the Claimant cannot claim an expropriation in connection with a voluntary industry phase-out to which it consented and from which it took the benefit.

Finally, PMRA's deregistration of lindane, based on a finding that its use poses unacceptable risks to human health and the environment, is a valid exercise of Canada's police power. As a result, there is no violation of Article 1110 in this case.

I will now turn to a very brief summary of some key facts.

Here, my point is that the main story regarding lindane concerns the science. It was science that prompted PMRA to engage in a review of lindane. It was science that remained PMRA's primary preoccupation and action relating to lindane. The specific events relating to lindane use on canola arose in this context and were fundamentally an industry process. The role that PMRA took in relation to these events was prompted, in all events, by considerations of fairness. In the meanwhile and subsequently, PMRA pursued its scientific review, and like regulators around the world, reached a negative result.

The Claimant would have this Tribunal believe that all of PMRA's dealings relating to lindane flow from a trade

problem that arose over the course of 1998. In the Claimant's view of the world, the PMRA forced the Claimant to withdraw lindane at the time simply to resolve a trade issue.

It is also suggested that this morning, I believe, for the first time, that PMRA needed some sort of cover to conduct a scientific review of lindane, but that is, in fact, the core of PMRA's mandate.

The Claimant would also have this Tribunal believe that all of PMRA's scientific review of lindane and, indeed, all of the international efforts since--concerning lindane since 1998 are simply a sham, meant to give a veneer of science to an improper political decision. This seems to be the main basis of its Claim under Article 1105.

As Canada has demonstrated in our own written submissions and will reiterate at this hearing, the Claimant has the tail wagging the dog. As of the late 1990s, when the trade issue relating to lindane arose, lindane had come under increasing negative scrutiny since the 1970s. Canada and several other countries, including the Claimant's home jurisdiction, the United States, had either initiated or had committed to conducting a review of remaining permitted uses. By the late 1990s, uses of lindane in Canada had already been limited to only a few below-ground treatment uses allowed only because it was thought at the time before science advanced that such uses didn't lead to the release of the pesticide into the

11:43 atmosphere.

Lindane had, by the 1970s, been recognized as a toxic, a disruptor of the nervous system like many organochlorines, such as DDT, in fact, 9 out of the 12 pesticides listed among the original dirty dozen at the Stockholm Convention are organochlorines; so lindane, joining them in May 2009, is in good company.

Like other chemicals of its class, lindane, when released into the air, travels by condensation and ends up in the Arctic. Because it's a Persistent Organic Pollutant, lindane tends to get into the food chain. It tends to accumulate in the body fat of animals and ends up in people's diets. Contrary to what the Claimant would have you believe, this was a problem with lindane itself and not with only related chemicals.

The Claimant's view of the relevant facts is fundamentally skewed. The fundamental issue with lindane is not trade. The fundamental issue with lindane is that by the late 1990s, even the few remaining uses of lindane including its seed treatment use, were being recognized as hazardous.

The many serious questions surrounding lindane use by 1997 prompted PMRA to launch a scientific review called a "special review" of remaining lindane registrations. The PMRA's attention to lindane began with science, was pursued through multiple scientific reviews and continues to be

11:45 science-based.

Given the precarious status of lindane, it's not surprising that, as of the late 1990s, the single largest remaining users of lindane in Canada, the Canadian canola farmers, decided to phase out their use of this active or pesticide and transition to alternatives. All of the challenges they were facing from their continued use of lindane reflected this precarious status. The U.S., as you've heard this morning, had no registration for lindane use on canola and was unlikely to grant one. In fact, we have demonstrated in our submissions the Claimant, in fact, tried very hard, indeed, to get a lindane registration or tolerance in the United States and failed.

The farmers were also being affected by negative scrutiny by environmental groups due to their use of lindane, and they knew that lindane was slated to be reviewed in Canada and the U.S., so they decided to organize an orderly industry phase-out and transition to new products.

To assist the Tribunal in understanding this sequence, we set out a summary chronology. Our intention here is simply to give a framework for a few key events. What this chronology shows in the first place is that by the late 1990s, lindane had either been banned or severely restricted not only in Canada but around the world, and I will come to a map on this shortly.

Moreover, it shows that by 1997, Canada was already

committing to reviewing its remaining restricted uses of lindane. The Claimant this morning showed you a portion of a slide, the portion of a text. We will go back to those texts and show that Canada, in fact, committed in the Aarhus Protocol negotiations to reviewing its remaining registered uses.

This is particularly relevant to the Claimant's allegation that the Special Review was prompted by a trade concern. In fact, the PMRA had committed to reviewing lindane before the canola industry withdrawal agreement was even proposed.

The next step of this chronology from March 1999 to October 2001 are the dates of Canada's Special Review of lindane. As Canada will demonstrate in this hearing, that review was a legitimate scientific process, not a fraud or a political sham that the Claimant would have you believe. By October 2001, PMRA's scientific team had determined that lindane use poses unacceptable health risks to workers exposed to the product during seed treatment.

I would also note at this point that PMRA was conducting multiple lines of review and had at that point draft conclusions that demonstrated that lindane use as a seed treatment leads to environmental contamination.

The dates thereafter are of the Board of Review process. Chemtura challenged the results of the Special Review as of 2002, leading to a Board of Review. You've heard this

11:48 morning that PMRA was dragging its heels in appointing the Board of Review. In fact, if you look at record, and as Canada demonstrated, Canada acted promptly in response to Claimant's request for a Board of Review. It was only the fact that Claimant sued PMRA and Canada objecting to the appointment process for the Board of Review that that Board's appointment was actually delayed. And a year after starting that action, in May 2003, in open Court, the Claimant's representatives acknowledged that the PMRA could, as had been originally arranged, participate, advise the Minister in the appointment process for the Board. There was never any question of PMRA employees sitting on the Board. The Minister of Health was simply asking the PMRA to assist it in identifying appropriate candidates, and the Claimant in May of 2003 agreed that that was a fair and appropriate process.

The dates thereafter on this brief chronology are of the Board of Review process. Chemtura challenged the results, as we said, and the Board took place between 2004 and 2005.

Now, the point of this is that the Board's process could hardly have proceeded if PMRA's scientific review of lindane was merely some kind of sham. In the second place, it demonstrates the due process Chemtura received. In the third place, the Claimant has attempted to avoid admitting this morning, the Board's fundamental conclusion is that PMRA reached acceptable scientific conclusions.

11:49 Yet, that's not all the science because Canada took the Board's recommendations and implemented them in a further full de novo review of lindane. This again confirmed PMRA's scientific good faith and full due process to the Claimant. This review took place between 2006 and 2008, during which the Claimant was offered the chance to make still further submissions. By April 2008, the PMRA's new scientific team, and I will emphasize that the teams that worked on the original Special Review, were not involved--were involved to a very limited degree in the second scientific review. This de novo review had concluded by April 2008 that lindane use as a seed treatment leads to unacceptable health risks, and that was despite that the PMRA took into account the recommendations of the Board concerning potential mitigation measures, and had taken into account the additional data that the Claimant submitted during the course of that Board of Review proceeding, and in the course of the lindane Re-evaluation Note.

That REN, or second de novo review, was released to the Claimant and other stakeholders in draft in April of 2008 and there followed a full year of consultations with the Claimant, including face-to-face meetings with the Claimant--a face-to-face meeting with the Claimant, during which the Claimant was again able to make its representations.

Now, Mr. Somers had mentioned that, we noted in our chronology that the lindane REN was released to the public and

11:51 suggested we should not have mentioned that in our chronology. Mr. John Worgan, in his second Affidavit, I believe, notes that the lindane REN was pending and about to be released, and so it's on that basis we included that in the chronology because that has, indeed, been confirmed. I would be surprised to know why the Claimant would not want the Tribunal to know that the lindane REN has been released to the public.

So, again, what does this chronology suggest? The PMRA's review was prompted by legitimate scientific concerns, was conducted through a legitimate scientific process that gave the Claimant ample due process, and it reached scientific conclusions.

I will now turn to the subsidiary set of events concerning the industry withdrawal of lindane use on canola. Here the chronology demonstrates that the issue was in the first place prompted, as Claimant notes, by Chemtura's own subsidiary, which rather casts a pall on its argument that PMRA was somehow singling out lindane for action.

The chronology also shows that what was at issue was the application of U.S. pesticides legislation, which barred the import of products containing non-U.S. registered pesticides such as lindane.

So, by 1998, prompted by Chemtura's subsidiary, the U.S. Government suggested it would take action against lindane-treated canola.

11:52 What the chronology next establishes is that the Canadian canola industry, alarmed by the potential application of U.S. pesticides legislation, had, by the summer of 1998, begun to organize a voluntary industry withdrawal of lindane use from canola. The Claimant has consistently, in its submissions, tried to omit the fact that the Canadian Canola Council, the Canadian Canola Growers Association were actively seeking this Voluntary Withdrawal Agreement, a fact that's extensively documented in contemporaneous documents, which we will come to in a bit.

The important thing to note also here with regard to chronology is by this time PMRA had already begun to organize its Lindane Special Review, as you can see in the yellow boxes above. So much for the notion that the PMRA was--that the Special Review was simply a condition of this Voluntary Withdrawal Agreement. The PMRA does not need a trade concern to conduct a scientific review when it believes there are issues with the use of a pesticide.

What the next stages of the chronology show is the canola industry achieving agreement of lindane--with lindane Registrants by November '98, by November 1999, we see the PMRA taking steps pursuant to that agreement to review replacement products as requested by the Registrants. Indeed, the first registered lindane replacement products were Claimant's Gaucho products, showing the Claimant taking the benefit of the

11:54 Voluntary Withdrawal Agreement, and we will come back to that point as well.

The chronology next shows all four Registrants, including Chemtura, voluntary removing canola from their lindane product labels by December, 1999. No one forced them to do this--not the PMRA, not the CCC. The Claimant has alleged that the PMRA somehow threatened them. It's shown absolutely no proof of that.

And the last date is the last date of sale and use of lindane for use on canola, July 1st, 2001, including the use of lindane-treated seeds. This simply shows that stakeholders were granted a full three year phase-out, and given the trade issue that the Claimant references, given the potential application of U.S. pesticides legislation, what the Voluntary Withdrawal Agreement actually allows the lindane manufacturers is a full further three years of use of their product instead of, as was a potential outcome, as one of our witnesses said, cold-turkey move away from lindane as of 1998 to avoid the border issue.

What Canada's submissions have demonstrated with regard to this subsidiary set of events and what our witnesses will confirm this week is that the VWA was, indeed, voluntary; that the PMRA took an appropriate role in connection with this industry agreement that made sense; that the PMRA treated all Parties equally, and that the Claimant took the benefit of that

11:55 agreement.

The facts I invoke here in Canada's case in general are not based on bare allegations. You've seen the Claimants string together this morning a series of partial quotations from documents and selected references to the record, omitting much of what Canada is telling you here. That's consistently been the Claimant's approach to proving it's the case in the matter. Much of Canada's job in this matter has been to tell this Tribunal what the Claimant didn't want the Tribunal to know, including the now near worldwide ban on lindane use in agriculture.

The Claimant's selective reference to the record is only one problem. Another is its reliance on the speculations of its own employees to allegedly prove very serious allegations, the kind one would expect to be made only on the basis of extensive documentary proof. Based on such speculations, the Claimant would have this Tribunal ignore the massive evidence of PMRA's good-faith scientific review of lindane.

The Claimant bears the burden of proving its allegations, yet Canada has sought to provide this Tribunal everything it needs to properly understand what PMRA did in relation to lindane, the steps the Claimant itself was taking, and why the Claimant's position simply cannot be squared with the facts.

11:57 I will walk through some of the key documents in relation to the tests we think that each Tribunal should consider, but I wanted first to recall the battery of factual and Expert Witnesses Canada has submitted to the scrutiny of this Tribunal, and from whom the Tribunal will hear over the course of this week, with one exception.

First of all, in response to the Claimant's allegations regarding the alleged improper scientific review of lindane, Canada has put forward the evidence of Ms. Cheryl Chaffey, a senior PMRA scientist who took a leading role in PMRA's special review of lindane and a test to the good faith of this scientific review. Dr. Peter Chan, another senior PMRA scientist from the PMRA's second de novo re-evaluation of lindane, attests to the independence of this second review.

John Worgan, PMRA's current Director General of re-evaluation practice, attests to the even-handed application in this review of PMRA re-evaluation policy.

Canada has also put forward a series of witnesses in response to Claimant's allegation that PMRA somehow forced it to enter into the Voluntary Withdrawal Agreement or somehow violated Claimant's expectations in connection with this agreement. Here, Canada has put forward Mr. Tony Zatylny, the Canola Council of Canada Vice-President, who will confirm that the Voluntary Withdrawal Agreement was, indeed, industry led, sought a voluntary phase-out to address a pressing concern.

11:58 We put forward Ms. JoAnne Buth, the current Canola Council of Canada President, who took over from Mr. Zatylny in 1999 and saw the VWA through to its conclusion.

We put forward Ms. Wendy Sexsmith, the PMRA's former Chief Registrar and Acting Executive Director, who will attest to the PMRA's role in connection with the Voluntary Agreement, confirming that its involvement was within its mandate based on voluntary participation by industry stakeholders, and that the PMRA treated all with an even hand.

We've also put forward Ms. Suzanne Chalifour, a senior PMRA scientist involved in the evaluation of new products. Ms. Chalifour will attest to PMRA's efforts to review lindane replacement products and treat all Registrants fairly in this regard, including in the registration of two versions of the Claimant's Gaucho or lindane replacement product a full year before any other replacement product was registered.

We have also submitted the Affidavit of Mr. Jim Reid, who could not be with us this week, but whose well-documented statement attests that PMRA issued no threats with regard to the last date of phase-out as the Claimant alleges.

We put forward Dr. Claire Franklin, the PMRA's Executive Director at the time of the events in question, who will speak to a few process issues in this Special Review, notably that she met with the Claimant's senior executive in the course of the Special Review a full year before the Special

12:00 Review was completed in October of 2000 and raised specifically the occupational health concern that the Claimants reference this morning.

Canada has also, on the Expert front, put forward the evidence of Dr. Lucio Costa, an eminent toxicologist whose confirmed scientific validity of both PMRA review--lindane review process and its conclusions and of the REN. We note that Dr. Costa's evidence is uncontradicted in this matter.

As the Tribunal will also be aware from the comments at the end of Mr. Somers's comments this morning, the Claimant has based its damages analysis on allegations that if Canada had not withdrawn support for lindane, it would have pushed harder for a parallel registration or tolerance for lindane use on canola in the United States, and that this would have addressed the canola industry's border concerns. In response to this, Canada has called Dr. Lynn Goldman, the former Assistant Administrator of the EPA with responsibility for pesticides, who has reviewed the Claimant's efforts to obtain a U.S. approval for lindane on canola. What she's found is the Claimant actually tried very hard, indeed, and failed.

Finally, Canada has put forward the evidence of Mr. Brent Kaczmarek. He confirms that the Claimant's damages analysis depends on ignoring not just Canada's alleged measure, but just about every documented fact about lindane since--and the canola industry from 1999 onwards.

12:01 The evidence of all of these witnesses will confirm that, on the one hand, in terms of the scientific review of lindane, PMRA's review was prompted by legitimate scientific concerns, was conducted through a legitimate scientific process, and reached scientifically legitimate conclusions.

Their evidence will also confirm in terms of the industry-led voluntary withdrawal that the Agreement was, indeed, voluntary, that the PMRA took an appropriate role in connection with that agreement, that the Claimant treated--the PMRA treated the Claimant fairly, and that the Claimant took the benefit of the VWA, or Voluntary Withdrawal Agreement.

I will now turn away from this brief overview to Article 1105 allegations. I'll first briefly comment on the standard itself. I will then consider the questions this Tribunal may ask in considering Canada's conduct in light of this standard.

One of the fundamental problems with the Claimant's allegations in this matter is that it has misstated the Article 1105 standard. The Tribunal will be excused for wondering if it confused the room in which it was wandering into this morning and ended up in some kind of domestic administrative law court review board of first instance. The first thing to recall with regard to Article 1105 is that the Claimant is called to uphold under this Article the international customary minimum standard of treatment of

12:03 aliens, or MST. What the Claimant has done is applied the wrong standard, as I said, in two ways: First, it significantly lowers the threshold for breach of customary MST. Second, it introduces novel elements that do not form part of this customary standard. In the result, the Claimant would have this Tribunal apply the wrong standard under Article 1105.

Canada's Statement on Implementation of the NAFTA issued in 1994 stated that Article 1105 was intended to assure a minimum standard of treatment of investments of NAFTA investors and provides for a minimum absolute standard of treatment, based on long-standing principles of customary international law. The three NAFTA Parties confirmed the applicability of customary MST in their Note of Interpretation of 2001, which reads: Article 1105 prescribes the customary international law minimum standard of treatment of aliens as the minimum standard of treatment to be afforded to investments of investors of another Party. The concepts of "fair and equitable treatment" and "full protection and security" do not require treatment in addition to or beyond that which is required by the customary international law minimum standard of treatment of aliens.

We will come back to this in our comments on the law at the end, but it is striking that Mr. Somers at no point this morning mentioned the minimum standard of treatment. Spoke exclusively in terms of fair and equitable treatment.

12:04 Now, as we will also discuss in our comments on the law, since the issuance of the Note of interpretation, NAFTA Chapter 11 tribunals applying Article 1105 have consistently upheld the high threshold for breach of customary MST. NAFTA tribunals have characterized this standard in a variety of ways, but the principle running through all of these cases is that MST presents a high threshold. A breach of the customary minimum standard has been described as treatment in such an unjust or arbitrary manner, that the treatment rises to a level that is unacceptable from an international perspective. That was the Myers Tribunal, even before the Note of interpretation was issued.

The purpose of the clause is to serve not as a springboard for consideration of any and all complaints about a State measure, such as, for example, did the Minister respond within 6 days or 11 days to a letter requesting clarification on the appointment of a Board of Review? No, but, rather, as the name implies, a minimum floor for treatment below which treatment of foreign investors must not fall.

The Claimant in this arbitration has essentially ignored the note of interpretation and sought to import into the NAFTA content that tribunals have devised when applying principles of treaty interpretation to other differently worded treaties rather than applying customary international law.

As we've said, the Claimant's approach results in two

12:06 main errors of law; that is, one significantly lowering the threshold for what is required to breach that minimum standard; and, two, by incorporating into customary MST novel content that is not recognized as part of the customary standard. Rather than treatment that would be deemed clearly improper and discreditable from an international perspective, the Claimant alleges this Tribunal should determine whether there was a lack of sufficient evidence to support the PMRA's decision to withdraw lindane or whether the PMRA based its scientific decision on irrelevant considerations rather than a gross denial of justice, it suggests that it is sufficient for the Tribunal to find the Claimant should have been granted a longer comment period at the end of the first Special Review. It suggests contra the findings of previous NAFTA Tribunals such as Mondev that the Tribunal should determine from the perspective of domestic Canadian law whether the PMRA acted within the scope of its statutory authority, not as MST would truly hold whether such acts led to treatment that was grossly unfair or inequitable.

As I mentioned at the outset, the Claim is essentially trying to transform this Tribunal into a supranational Court of Domestic Administrative review.

Rather than addressing Canada's conduct from the perspective of customary international law, the Claimant applies novel tests which do not form part of the customary

12:07 standard. The Claimant does so having failed to discharge its obligation of demonstrating an expansion of customary international law by consistent State practice and by state sense that this practice, by this practice they are acting legally, what is known as opinio juris. Canada submits the Claimant's approach is simply wrong at law and must be rejected. The Claimant invites this Tribunal to engage in a level of scrutiny of Canada's Domestic Regulatory Affairs that is legally incorrect.

What this Tribunal should be considering under Article 1105 is whether from a fairness perspective PMRA's administrative actions in relation to lindane led to a conclusion that PMRA acted in a manner that was clearly improper and discreditable, amounting to a breach of the international customary minimum standard of treatment. I will come to the specific questions we think that should be considered under the standard in a moment.

But, first, a related comment which picks up on Professor Crawford's this morning--question this morning, on what might constitute a breach. The Claimant has adopted a kitchen sink approach to Article 1105. It's evidently calculated that if it complains long enough about enough things under enough headings, surely somewhere in all of this morass of complaints that the Tribunal might conceivably find something that could be worthy of censure.

12:09 In response to this, Canada would point out two things: First, none of the Claimant's alleged measures--alleged breaches constitute a breach of customary MST, either taken individually or taken together.

But, second, any allegation of breach must be considered in light of the entire record; thus, for example, the Tribunal may believe that Canada should have granted a longer comment period at the end of Special Review of lindane. Canada does not believe that this sort of administrative law question is properly before this Tribunal.

But even if it were, the Tribunal's job would not stop there, because this Tribunal would have to consider this issue in light of the multiple subsequent opportunities Canada thereafter gave Chemtura to raise its complaints and to make further submissions. In other words, the Tribunal must also consider the remedies Canada provided to alleged breaches of conduct.

Those are my brief comments on the law. I will now turn to questions that the Tribunal--we think the Tribunal may assist this Tribunal in considering the evidence over the course of this coming week under Article 1105. This is because in Claimant's Submissions of necessity in our reply, the allegations popped up under repeatedly under different headings, making the job of following them somewhat repetitive.

We have organized the Claimant's broad ranging

12:10 allegations, therefore, in relation to the two main factual themes of this matter: One, the PMRA's scientific review of lindane; and, two, the voluntary industry phase-out of lindane use on canola. They can be summarized in relation to seven questions which we propose the Tribunal should consider this week.

In the first place, in relation to the scientific review of lindane, the three questions are:

One, has the Claimant proved that PMRA's scientific review was undertaken based on improper and illegal considerations? No.

Has the Claimant proved that PMRA conducted a scientific review that was manifestly without scientific basis and biased, leading to the conclusion that Claimant was subjected to unfair treatment? Again, no.

Has the Claimant proved that PMRA's review was shockingly lacking in due process? No. The evidence of all of Canada's witnesses will confirm that PMRA's review was prompted by scientifically legitimate concerns, was conducted in accordance with scientifically legitimate practices through a fair process and reached scientifically legitimate conclusions.

In relation to the industry-led withdrawal of lindane use on canola, the Claimant's allegations can be formulated in the following terms:

One, was the Claimant unfairly or unlawfully forced to

enter into the VWA by PMRA?

Two, was the PMRA's agreement to facilitate this Voluntary Agreement a repudiation of its statutory mandate, exposing the Claimant to fundamental unfairness? No.

Three, did the PMRA, in facilitating this agreement, expose the Claimant in particular to grossly unfair treatment? No.

Four, did the Claimant have any legally enforceable expectations in relation to this Voluntary Agreement? If so, did the PMRA act in violation of these expectations? Again, no.

The evidence will also confirm, in terms of this industry-led withdrawal, that the Agreement was, indeed, voluntary; that PMRA took an appropriate role in relation to an industry agreement that made sense; that PMRA treated all Parties fairly; and that Claimant agreed to and took the benefit of the Agreement.

I would note that I have worded these questions in light of the high threshold required to find a breach of customary MST. However, it's Canada's position that its measures were not in breach even of the lower threshold the Claimant wants this Tribunal to substitute for customary MST.

As I've said, we will first consider the allegations in relation to the scientific review. In the first place, has the Claimant proved that PMRA's scientific review was

12:13 undertaken based on improper considerations egregiously outside of its legal mandate? No. Canada's review of lindane was prompted by proper considerations squarely within its legal mandate.

The Claimant makes it seem like the decision to re-evaluate lindane as of 1998 was some kind of shock or surprise. It suggested that, in its submissions, that the use of lindane since the 1930s proceeded unhindered until Canada improperly decided to conduct a Special Review based on trade considerations relating to this industry withdrawal. And, in fact, suggesting this morning, I would think, for the first time that Canada somehow needed the cover of a trade issue to conduct a scientific review of lindane. To the contrary, Canada's decision to review lindane in the late Nineties was taken on the basis of precisely the scientific concerns that are at the core of the PMRA's mandate. The decision was taken in a context in which lindane had long been giving rise to serious scientific doubt. I have noted this briefly--the withdrawal of lindane since the 1970s. Canada itself began limiting the use of lindane in 1970, when it withdrew support for foliar, i.e. above ground uses of the chemical on a variety of uses. By the late 1990s, most uses of lindane had already been withdrawn, based on concerns about its toxicity and persistence in the environment.

And Canada wasn't alone in these concerns. The first

12:14 map I'd show you is that of bans or severe restrictions on lindane from the late 1960s to about 1998.

The point of this map is that Canada's own Special Review of lindane wasn't being launched in a vacuum. The decision to review lindane uses was part of a specific historical trend. Moreover, there were many specific events around 1997-98 that emphasized the need for a review. One was accumulation of country-specific bans and reviews in leading jurisdictions. France, for example, banned agricultural uses in 1998, despite the fact that it was historically one of the biggest users of lindane. The U.K. began its review in 1998, and by 1999, had suspended seed treatment due to concerns about occupational exposure risk.

The E.U. rapporteur country, Austria, launched a review in 1998 leading to a European phase-out as of 2000, and the U.S. in 1998 launched its own lindane review. The Claimant this morning suggested that the PMRA was trying to get the U.S. EPA on the lindane, the anti-lindane bandwagon. In fact, the U.S. EPA launched its review--reregistration eligibility decision of lindane a year before the PMRA's decision--Special Review began rather in--theirs began in 1998, and the PMRA's planning began in 1998 and was publicly launched in March 1999.

Moreover, as of 1997-98, Canada joined over 30 nations in signing the Aarhus Protocol on Persistent Organic Pollutants, pursuant to which lindane uses were restricted, and

these restrictions subject to a scientific review.

I will return to this latter point about the Aarhus Protocol in a moment, but I also wanted to show you what happened during the period when Canada was conducting its scientific review. Let's return to the map to show the state of play as of 2006. Here, we see the number of worldwide bans has only increased.

Moreover, since May 2009, the world view on lindane has become nearly unanimous under the Stockholm Convention. So, these are the States around the world that have committed to banning existing uses of lindane under the Stockholm Convention by putting it on Schedule A, which is the schedule for products targeted particularly for elimination.

I would note that the Claimant's witnesses suggest to this Tribunal they see no reason why, as of 2002, a registration might not have been granted in the United States and that registrations in Canada should have been--would not have been maintained through the 2022, when this is the situation already in 1997, in 2006, and 2009.

So, this was the context in which lindane, Canada's lindane measures have taken place. Was Canada motivated by improper considerations in its lindane review? Clearly not. Let's return to Canada's Aarhus Protocol commitments in 97-98.

The Aarhus Protocol sought to put in place specific commitments regarding restriction and progressive elimination

12:18 of Persistent Organic Pollutants by member states. Lindane was listed as a restrictive substance in Annex 2 of the Protocol. Products in which 99 percent of HCH isomer is a gamma form, i.e., lindane, are restricted to the following uses, and they are listed. And this is conditional upon the reassessment under the Protocol no later than two years after the date of its entry into force. The Claimant's counsel this morning said, when people mean lindane, they say lindane. Clearly, here they mean lindane and they say lindane, and you will note that the Article above lindane on this list is HCH proper, which is just completely banned.

Canada therefore made a specific commitment under Aarhus, informally in late 1997 and then confirmed in a signature of the Convention in June 1998. That commitment was fulfilled by PMRA's 1999-2001 Special Review.

Now, Claimant has tried to counter this evidence by mischaracterizing Canada's position in the Aarhus negotiations. It suggests that Canada was refusing to include lindane in the Protocol because it didn't see a problem with the pesticide. This thesis is false. As Dr. Franklin, the PMRA's Executive Director, will explain, Canada couldn't commit internationally to ban a product in the absence of a domestic scientific review, whatever concerns might have been expressed. What you see in these negotiations is Canada doing two things: Taking note both of international and domestic concerns; and

committing to restrict lindane to currently registered uses, therefore not being in violation of its domestic legal structure, but also with a commitment to conduct a scientific review of even these remaining registered lindane uses.

Ironically, what the Claimant misconstrues as some kind of smoking gun is, in fact, evidence of Canada trying to act responsibly and legally rather than by simply banning lindane in the absence of review.

Canada's support for this Protocol is reflected--reflected its understanding of the then-current scientific concerns regarding lindane, which were evolving over the course of 1997-98, so recall by the late 1990s, the main uses of lindane were below-ground uses, and there was uncertainty at the time about whether these uses might lead to further environmental pollution. And over the course of these negotiations, more evidence was coming to light.

So, if you look at the negotiating text again, we'll take a look at the part of the document the Claimant didn't want to you see. This is what Canada was saying about lindane in the context of these negotiations.

On a more technical level, the following should be noted: Lindane is subject to long-range atmospheric transport to remote regions. There is monitoring data demonstrating this, the Canadian CACAR Report, and lindane clearly meets the numerical criteria for long-range atmospheric transport

12:21 established by this protocol. Lindane is persistent in the environment, as evidenced by the Arctic monitoring data. There is evidence of bioaccumulation, particularly in aquatic organisms. Information provided the Parties shown in January shows evidence of significant aquatic toxicity.

And then down at the bottom of the page, they mention again the issuance of these two new important Reports, the Canadian Arctic Contaminants Assessment Report, describing the results of Arctic monitoring programs released in June 1997. Results show that HCH, including the gamma isomer, which is lindane, is the most abundant Persistent Organic Pollutant in air, seawater, and rivers in the North.

So, this is the pesticide for which the Claimant this morning was suggesting there were only trade concerns, which arose in 1998.

If we go on to look at PMRA's initial planning process for the scientific review of lindane, we see again a direct link made between--to PMRA's international commitments and its scientific motivations. Here is one of the initial project sheets in June 1998, when Canada was signing the Aarhus Protocol, the goal to undertake a reassessment of all existing uses of lindane, as required for compliance with the provisions of UNECE LRTAP POPs Protocol, which is the Aarhus Protocol.

Now, you see that reassessment has been crossed out with Special Review. Under the PMRA's re-evaluation policy,

12:22 which the Claimant must certainly know of, where there have been specific concerns raised about the use of a pesticide, that is the condition for pursuing a special review as opposed to a cyclical re-evaluation. So, before any trade issue or before any proposed agreement of voluntary withdrawal was even put forward later in the summer, Canada was already committing to conducting a special review of lindane.

Now, if we--if Cheryl Chaffey has confirmed, and you will hear from her in a few days that in the spring of 1998, the PMRA had already begun preparing its scientific review of lindane. It was announced in March of 1999, but you will see in the record a number of memoranda which PMRA was generating at the time to see what data it had available.

It's also worth noting that the Claimant was well aware of the very serious scientific concerns about lindane as of the late 1990s. One of the main industry representatives, the Centre Internationale d'Etudes du Lindane, or CIEL, which the claimed referred to this morning, I believe, as a lobbyist for the lindane industry, certainly an organization that was seeing itself as a leader in lindane research to promote the use of lindane, this is what it had to say in 1998: Following the use pattern of lindane and in understanding the concerns of UNECE regarding Persistent Organic Pollutants and transboundary air transport, we have decided to limit ourselves to only support such uses of lindane that do not release undue

12:24 quantities in the atmosphere.

Now, if you're not worried about a pesticide from a health and environmental point of view, you're not going to say we will only support those uses that don't release undue quantities.

Now, the Claimant will respond to this, well, they are saying they are supporting their below-ground uses, but the Claimant's own advisors noted in a lindane meeting of July 21st, 1998, which will be up on the screen in a moment, that even its below-ground use will cause pollution. As we say here, lindane is volatile when applied to the soil, and this is precisely one of the scientific conclusions which was confirmed by countries around the world, including by Canada.

In November 1998, 1 of the Claimant's main representatives in Canada at the time, Bill Hallatt, whom the Claimant has failed to call in this arbitration, commented on a Chemtura response to international lindane reviews that were then ongoing. He had the following to say: I got your fax on the CCC statement on lindane and Persistent Organic Pollutants. Unfortunately, the heading--the exclusion of lindane from the list of Persistent Organic Pollutants is inaccurate. Lindane is not on the top 12 list for banning, but Persistent Organic Pollutants cover a lot of ground beyond the initial 12, including radioactive materials, heavy metals, industrial chemicals and lindane. Lindane is still a Persistent Organic

12:25 Pollutant. I can see where JLM was misled.

This is what Claimant's internal documents were saying in November of 1998.

The Claimant, as I've mentioned, has failed to call Mr. Hallatt in this matter.

We've included in our presentation a more detailed chronology, setting out the lead-up to the Special Review. What this chronology confirms is that the Special Review had multiple tipoffs and a sound scientific motivation. From the perspective of Article 1105 and the question before this Tribunal, the point of all this is that it simply puts to the lie the Claimant's allegation the PMRA engaged in the special review to give a veneer of science to an improper phase-out. The special review was planned before the specific canola industry phase-out was even considered and was motivated by sound scientific considerations. The PMRA in these circumstances did not need a trade issue to pursue lindane. It had very good scientific reasons to do so.

The Special Review also wasn't some sort of condition Chemtura imposed in relation to the industry phase-out. The Special Review would have gone ahead in any event. There is no violation of Article 1105 here, either under the proper customary international test or under the incorrect test the Claimant would have this Tribunal apply.

I will next turn to the second of the three points

12:27 under Article 1105. What about the conduct of the Special Review itself? Has the Claimant proved that PMRA conducted a scientific review that was manifestly without scientific basis and biased, leading necessarily to the conclusion that Claimant was suggested to unfair treatment? No.

As this Tribunal has seen in affidavits submitted by Canada with its Counter-Memorial and Rejoinder Memorial, and as it will hear from Cheryl Chaffey, Dr. Peter Chan, John Worgan, Dr. Lucio Costa, both of PMRA's original special and the subsequent lindane Re-evaluation Note, or REN, were conducted in accordance with scientifically legitimate procedures by PMRA scientists who were given no particular instructions as to outcome.

The Claimant's suggestions that the scientific review of lindane was not a proper scientific process where its outcome was pre-judged have no basis in evidence. The burden of proof, as I've mentioned in this case, is on the Claimant. It has failed to discharge that burden, relying solely on partial misquotes from documents and speculations of its own witnesses. Canada has in response put forward to this Tribunal extensive evidence permitting the Tribunal to appreciate the very substantial efforts Canada's scientific teams have taken in good faith in their repeated reviews of lindane.

In the first place, as Cheryl Chaffey will confirm, PMRA's original Special Review took place between 1999 and 2001

12:28 by a full scientific team. That team pursued its review over hundreds of person hours. It pursued the review on all of the fronts of the product's re-evaluation, in particular, environmental behavior, carcinogenicity, toxicity, exposure assessments and value. The PMRA Special Review also applied general re-evaluation policy as applied at that time within the PMRA. There is no singling out of lindane for a particularly--for particular treatment. The PMRA applied its re-evaluation policy.

Indeed, the Claimant has sought to impugn the credibility of PMRA's scientific review by suggesting that there was something strange about conducting a re-evaluation at all. In fact, and as Canada has shown in its submission, the Special Review of lindane took place as part of a general historical shift in Canadian pesticide policy, away from a near exclusive focus on evaluating new pesticides, towards a general reassessment of over 400 old active, including lindane. Far from being singled out, the review of lindane reflected this general historical trend.

The U.S. was also reviewing lindane because it was going through exactly the same process of general reevaluation of old pesticides and had begun its own review of lindane only a year before. Now, the Claimant has suggested this morning that the PMRA was not interested in any data. That's simply false. The PMRA was able to rely on the very extensive

12:30 database that the EPA had set up only a year before the PMRA began its review of lindane in the context of its own parallel review. PMRA's reliance on the U.S. database was part of a series of policies adopted by the Agency to help it deal efficiently with the enormous re-evaluation task facing it as of the late 1990s.

The Claimant has, of course, relied heavily on critiques put forward by the Board of Review regarding various aspects of the PMRA's Special Review conclusions. It's important to recall about the Board of Review from the perspective of Claimant's Article 1105 allegations, the Board of Review process could never have gone forward if the PMRA Special Review was some kind of scientific fraud. The Board of Review received three rounds of written testimony, multiple Witness Statements and expert reports, and heard over a week of oral submissions regarding the Special Review process, including from the three senior scientific--PMRA scientific--PMRA scientists directly involved in the review. It could hardly have done so if PMRA scientific review was something--was nothing more than a facade.

Moreover, as Canada has pointed out, while the Board of Review and PMRA had good-faith, scientific differences of view, the Board's fundamental conclusion was that the risk assessment conducted by PMRA and the conclusions reached were generally within acceptable scientific parameters.

12:31 Now, from the perspective of Article 1105, Canada would submit that this Tribunal could just stop there. Canada would recall that this Tribunal is not required to consider PMRA's results on the basis of correctness. It should be sufficient from the perspective of Article 1105 that the Special Review was a prima facie scientific process. The science was not so faulty that it would lead necessarily to the inference the process was a sham. From that point of view, the Board's conclusions are dispositive in Canada's favor.

We also know that the Board of Review did make various recommendations. The Board would have been less conservative than the public regulator. The Board knew that the Claimant had submitted certain data over the course of the hearing, data it had not generated previously, and suggested various litigation measures which it had failed to suggest--or to propose to PMRA in 2001, and suggested--the Board suggested the PMRA should take these into account.

So, in case there was any doubt regarding the scientific legitimacy of its result, PMRA thereafter took the Board of Review's recommendations and conducted a full de novo review of lindane between 2006 and 2008. That review again involved hundreds of hours of PMRA's scientific time. Even having taken into account the Board's recommendations, PMRA again reached a negative conclusion. Lindane use not only posed unacceptable risk to workers exposed to the product

12:33 during seed treatment, it was also a possible carcinogen. Moreover, its use as a seed treatment leads to environmental contamination, and that was something that PMRA determined in draft already by the Fall of 2001.

From the perspective of Article 1105, Claimant has again sought to suggest the second review was simply another sham, biased and improper. One of the allegations is that the same people involved in the Special Review were involved in the REN, but as I have noted, this is without substance because Canada put forward a new team.

And also the very fact that Canada's--that the fact that Canada's counsel suggested that PMRA should pursue this second review does not call into question the independence or the legitimacy of that review itself.

In case all of this is not enough on the face of the record, Canada has provided the Tribunal with the expert views of a third party, Dr. Lucio Costa. Dr. Costa has examined the Special Review's process and conclusions, the Board of Review's conclusions and the subsequent lindane re-evaluation note. What he has found in each case is that both the PMRA's process and its conclusions were in accordance with sound--with scientific practice. He has also confirmed that the Board's comments on the Special Review reflected a reasonable scientific difference of view with the PMRA within the four corners of a scientific debate.

12:34 I would note again here that Dr. Costa's evidence in this matter is uncontradicted.

The best the Claimant has been able to do is suggest that Dr. Costa's opinions were somehow inappropriate. The only inappropriate thing in them from the Claimant's perspective is that they demonstrate that its complaints are baseless. We again attached to this section a more detailed chronology, setting out relevant dates in the Special Review from 1999 to 2001.

Bringing this debate back to the question posed at the beginning, was the Special Review some kind of improper sham process, grossly biased, reaching scientifically baseless conclusions? Not even close. The Claimant's case on this question fails on the basis of customary international MST, but it fails under the incorrect standard the claimant would instead have you apply. The correctness of Canada's scientific decision-making should not be at issue in this proceeding, but both Canada's own extensive domestic process and the concurrence of Canada's--of countries around the world, place its results squarely within a reasonable scientific result.

I will turn now to the third point under the Special Review of lindane, the suggestion that the scientific review was somehow flawed from a process point of view. Again, this is the Claimant trying to turn the Tribunal into a domestic administrative review tribunal.

12:36 But here again the Claimant has no case either under proper MST, customary MST, or under the incorrect test the Claimant would have this Tribunal apply. Not only do its complaints not amount to a violation of the international minimum standard, the Claimant has received more due process with regard to the review of lindane than most people could ever hope to receive in 50 lifetimes.

The Claimant's main allegation of unfairness with regard to the Special Review is that PMRA allegedly failed to consult with the Claimant and, in particular, failed to disclose to the Claimant the so-called "focus of the Special Review," that its focus would be occupational risk. In fact, PMRA engaged in exchanges with Chemtura from the start of the Special Review concerning the nature and focus of its process. Moreover, the Claimant was aware from the start that occupational exposure was a significant issue in the review.

The Special Review announcement itself of March 15, 1999, was open-ended, noting that there was considerable scientific uncertainty surrounding lindane, and that as the review proceeded, the scope of the review might change. After the Special Review was launched on March 15, by May '99, the PMRA had participated in a two-day-long meeting with the Claimant's technical representative, as the Claimant said this morning, lobbyist TSG, and with the Claimant's Canadian representative Rob Dupree, whom the Claimant has failed to

present in this arbitration.

Mr. Johnson, one of the Claimant's witnesses you will hear from this week, was in attendance at this meeting. During this meeting the PMRA went over all aspects of its intended review. The PMRA specifically signaled as early as the May 10-11, 1999, meeting that it intended to consider exposure issues, as we see on the screen. Their schedule is to focus on the chemistry aspects now and health and environmental issues in the Fall.

Now, a sophisticated Registrant would know that health issues necessarily include the potential health implications of exposure to the chemical during the most common use, which was seed treatment.

And then as the Claimant's own witness, Edwin Johnson noted, summing up this two-day meeting with PMRA: At the outset of the Special Review, in summary, PMRA staff was very open in the discussion and interested in our presentations on data and the canola tolerance. We will be able to maintain an open relationship and dialogue with them as the Special Review proceeds. And they go on to make a few notes.

It's also worth noting with regard to this issue of notification that occupational exposure might be an issue, as Cheryl Chaffey has noted, at the time of the May 10th meeting, Chemtura's representatives had been extensively involved in discussions with the PMRA's U.K. equivalent, the Pesticide

12:38 Safety Directorate. By May 1999, the PSD was about to ban lindane in the U.K. related to--in the seed treatment use.

The decision was announced less than a month later in June 1999. As you can see here, the U.K.'s document said: The government has listened to the concerns raised about lindane and has acted on scientific findings of the Advisory Committee. We asked the committee to consider all the health and environmental issues raised by lindane. On the basis of their advice, we plan to take urgent action to ban the use of lindane in the seed treatment process.

As a sophisticated registrant, Chemtura can hardly have expected PMRA to ignore this decision, including the basis of this decision by a significant equivalent regulator. Now, the Claimant had said this morning, well, at the end of the day it turned out that the U.K.'s was based on a different calculation, and therefore it didn't become--at the end of the day it wasn't relevant. Irrespective of that point, the point is that this flagged that a major equivalent regulator has found that lindane was of concern for occupational exposure, and this was in 1999.

If this weren't enough notice that PMRA was conducting an Occupational Exposure Assessment and indeed that this was an issue of concern to PMRA, PMRA's executive director, Dr. Claire Franklin, from whom you'll hear this week, also met with the Claimant over a year before the release of the Special Review

12:40 in October 2000. Mr. Ingulli, one of Claimant's main witnesses, was present at that meeting. His notes of the meeting state PMRA concern--concerns of PMRA, worker exposure.

Within days of this meeting, the Claimant sent the PMRA a letter encouraging PMRA to rely on its Occupational Exposure study. During our meeting of October 4th to Dr. Franklin, Ms. Sexsmith and yourself, the issue of worker exposure was discussed. Dr. Franklin indicated that the worker exposure was an area that PMRA had some concerns about, and at the bottom of the letter she notes rather--this is Rob Dupree, who will not be here this week, the Claimant has failed to call--if the PMRA has not already done so, I would encourage them to review this study to gain a better understanding of the exposure profile that workers can expect when treating canola seed with a seed treatment containing lindane. The claimant's counsel this morning suggested that PMRA did not consult with the Claimant about worker exposure issues. Here's the Claimant--and that if they had, they would have gotten the real story. Well, here is the Claimant a year before the Special Review results were released being specifically asked at the highest level of the organization, the Executive Director, with the senior executive of Chemtura, please provide us data on this issue, and this is what Chemtura delivered two days later.

Now, a year later in October-November 2001, when it became clear that the PMRA had relied on this study, Chemtura

12:41 suddenly decided that this study was worthless, and why hadn't you come to us for further data.

Now, again, the Claimant has heavily relied on the Board of Review's comments in support of its allegation that the Special Review was unfair. This is again a classic case of partial citation syndrome. Here is what the Board of Review had to say about Claimant's own participation in the Special Review: In the Board's opinion, there was a lack on Crompton's part--Crompton, the predecessor name of Chemtura--to make efforts to inquire and consult with the regulator. Chemtura did not engage PMRA in any meaningful way in respect of updates on the process, interim findings, or potential data gaps.

Finally, at the end, Crompton Chemtura made no attempt to update or replace the study at the time to better reflect what it considered to be the current use practices, nor did Crompton propose label changes that reflected modern use practices for all of the current uses.

So, that's what the Board had to say about Chemtura's participation in the process.

Now, the Claimant has also criticized PMRA for providing too short a comment period at the end of the Special Review. It has pointed to the Board of Review's own critique of PMRA in this regard. As John Worgan has noted, the comment period at the end of the Special Review was adapted to the purpose of that period, for Registrants to bring to PMRA's

12:43 attention any errors or to note any studies that had been left out. As Mr. Worgan has noted, PMRA's policy and re-evaluations was to rely on existing data. This was to avoid delay in the review of pesticides which, in the Claimant's case, were in current use and which might have current health or environmental impacts.

PMRA policy was plainly stated and was applied across the Board not just for lindane. For these purposes, the comment period at the end of the Special Review was entirely sufficient.

Be that as it may, a complaint that the Claimant should have been given more time to respond at the end of the Special Review does not, in Canada's view, constitute a violation of the international minimum standard of treatment, nor should it constitute a violation even of the Claimant's incorrect test. But the process story doesn't even stop there because as Wendy Sexsmith notes, when the Claimant challenged the outcome of the Board of Review--of the Special Review, it was offered a full scientific hearing to review its objections. And the next slide simply shows the Board of Review process. As it noted, Claimant was able to make three rounds of written submissions, present fact and Expert Witnesses, and enjoyed nine full days of hearing. This is yet another fatal stake driven in the heart of Chemtura's process complaints.

Yet even this is not all, as John Worgan has

confirmed, the Claimant was offered a full, further extensive opportunity to be heard and to submit evidence in the course of the lindane REN, the de novo review of lindane which took place between 2006 and 2008, and then to participate in comments on that draft review from April 2008 to 2009.

Obviously, the Claimant was never going to be satisfied with anything but a positive outcome to the PMRA's REN, however unreasonable that expectation may have been. As Dr. Costa points out, the record of these exchanges shows the Claimant progressively abandoning different aspects of its objections. In any event, from a process point of view, the Claimant has no legitimate complaint.

It also bearing noting in connection with the due process complaint that the Claimant launched and subsequently abandoned, nine applications for a Judicial Review before Canada's federal courts, all relating to the facts at issue in this matter. Simply to comment on the one Federal Court proceeding the Claimant mentioned this morning, that proceeding was--did ultimately become moot because the very issue that the Claimant had raised--it's very interesting, if you look at the letter--if you look at the record, the Claimant in the beginning of June of 2002 wrote to the Minister asking the question about the appointment process for the Board of Review and within less than two weeks, I think it's maybe seven business days, had launched its application, calling in

12:46 question the appointment process, so, before the Ministry even had a chance to respond, and then a year later, in open Court, admitted that its process issue with regard to the appointment of the Board was moot by saying it had no objection to PMRA assisting in finding appropriate candidates for the Board of Review process.

Sure.

ARBITRATOR CRAWFORD: What do you say about the costs order in relation to the settlement of that Federal Court proceeding?

MR. DOUAIRE de BONDY: My understanding is that was done to avoid the nuisance value of the continuing litigation, and it was far cheaper to pay $5,000 than to proceed with these or even to contest this. And as we know from sitting here, that was a far cheaper decision than pursuing litigation.

All in all, consideration of the record leads back to the inevitable conclusion the PMRA's decision to conduct a special review was motivated by proper scientific conclusions, it reached considerations, reached the result through a wholly legitimate scientific process, and it did so in a manner that did not violate international due process.

The Tribunal President had mentioned at the beginning we might take a pause. I think this would be an appropriate pause because then I will be able to go on after the pause to the issues relating to the Voluntary Withdrawal Agreement.

12:47 PRESIDENT KAUFMANN-KOHLER: That's perfect. So, we take an hour now and start again--well, my watch doesn't have the same time like this clock, so anyway, one hour, and then we start again. Thank you.

(Whereupon, at 12:48 p.m., the hearing was adjourned until 1:55 p.m., the same day.)

AFTERNOON SESSION

PRESIDENT KAUFMANN-KOHLER: Are we ready to start again? I think so.

Can I again ask someone to close the doors. Thank you.

Mr. Douaire de Bondy, you can continue.

MR. DOUAIRE de BONDY: Thank you, President.

I will now turn to the Claimant's allegations regarding the Voluntary Withdrawal Agreement. Having put to rest Claimant's Article 1105 complaints in relation to the scientific review of lindane, here we have four questions, as I said earlier. The first of these questions is: Did PMRA violate the international customary standard of treatment by allegedly forcing the Claimant to enter into the VWA?

The evidence in this matter overwhelmingly demonstrates that the Agreement of voluntary withdrawal was industry led, pursued for very good reasons, and in all events remained entirely voluntary.

Add of 1998, major end-users of lindane in Canada, the Canadian canola industry, determined that their reliance on lindane was an enormous business liability. Since lindane use was by 1998 coming under sustained negative scrutiny both in Canada and internationally, the decision was hardly surprising or unreasonable.

Canada has put forward the evidence of two key Canola

13:52 Council witnesses, Mr. Tony Zatylny and Ms. JoAnne Buth. Both of them have attested and will attest to the fact that the VWA was the Canola Council's deal.

In the immediate term, use of lindane was, as you heard this morning, threatening to cut off U.S. markets to Canadian canola predicts. Lindane was not registered in the U.S. for use on canola, and indeed never was. Its presence on canola imports from Canada to the U.s. was therefore illegal.

The greatest irony of this entire matter is that the Claimant itself brought this issue to the U.S. Government's attention. In late 1997, one of Chemtura's subsidiaries, Gustafson, was seeking to promote the sale of lindane, its lindane alternative Gaucho in the United States. It therefore wrote to the U.S. EPA requesting that imports of lindane-treated canola be declared--canola seed be declared illegal.

This September 1997 letter, a tipoff to the U.S. EPA asking it to take immediate action, prompted the USA--U.S. EPA to note that it would close the border to canola-treated seed by June 1998, a very short time line, indeed.

The U.S. EPA also came under domestic pressure to prevent the import of canola grown from lindane-treated seed on the basis that it contained illegal lindane residues. Given lindane's properties as a Persistent Organochlorine Pollutant, the presence of lindane residues in Canadian canola was likely.

13:54 The Claimant this morning--Claimant's counsel this morning mentioned the U.S. couldn't turn a blind eye to this, and it was an issue relating to U.S. legislation.

As the canola growers themselves immediately recognized, Gustafson's action had put at risk the entire canola market--export market to the U.S. The President of the Canadian Canola Council of Canada wrote back to Gustafson in January 1998 raising concern about this tipoff, and the CCC began pursuing harmonization initiatives with the U.S. EPA. The Claimant in its submissions has entirely ignored all the efforts of the CCC over the course of 1998.

The U.S. border problem was just one of the Canadian--canola industry's lindane concerns. As of 1998, Canadian canola growers were also under pressure domestically from environmental groups to phase out their dependence on lindane or face negative publicity. Canola was sold on the basis that it was a healthy product. If the product had been stopped at the border based on the presence of an unregistered pesticide or if environmental groups denounced the lindane presence on canola, this could have had devastating impacts.

The canola industry itself wanted to promote a responsible use of pesticides and was uncomfortable with its relies on a pesticide increasingly thought to pose unacceptable risks, and they also knew that there were reviews already ongoing in the U.S. and pending in Canada pursuant to the

13:55 Aarhus Protocol commitments.

In all of these circumstances as of 1998, Canadian canola farmers sought to organize an orderly transition away from their reliance on lindane. And as I say, the Claimant tries to entirely ignore the CCC's central role.

I'd also note that they spoke this morning; Mr. Somers mentioned this morning that this is entirely a trade issue, but there were strong health and environmental issues already in 1998.

The Canola Council tried to organize this withdrawal as of late summer 1998 by calling on lindane Registrants to voluntarily amend their lindane Product Labels, removing canola use from the lindane seed treatment products.

Canola growers also asked PMRA at this time as the national pesticides regulator to process registered request for partial label changes to allow a phase-out period for lindane use on canola over three years, and by considering replacement products during this phase-out period.

Canola growers further asked PMRA to pursue harmonization initiatives with U.S. EPA, and to convince U.S. EPA that in light of this three-year phase-out, canola-containing lindane residues would not be immediately stopped at the U.S. border. In absence of this orderly transition, Canadian Canola Associations were seriously contemplating an immediate stop to their use of lindane as of

13:57 1998.

This state of affairs was summarized in an internal Chemtura E-mail. This is the Claimant's document of September 22nd, 1998. "I met with a Tony Zatylny of the Canola Council of Canada, who has been working on tolerance harmonization between the U.S. and Canada. He has a very negative opinion regarding the future of lindane and has gone as far as suggesting a withdrawal to PMRA and EPA."

What is clear again and again from the documentary record is that the Canola Council of Canadian was prompting this voluntary industry phase-out. After initial discussions led to an apparent understanding between canola industry stakeholders, the President of the Canadian Canola Growers Association wrote to the PMRA as follows. This is a letter of October 19, 1998: "On behalf of the Canadian Canola Growers Association, I would like to indicate that CCGA members have been in discussions with lindane Registrants for a voluntary removal of lindane from canola seed treatments." Commenting on the Claimant's comments of this morning, we recognize the environmental and health issues that surround lindane as well as the potential for negative perception about the healthiness of canola because of lindane. To avoid any market impact growers have decided that they no longer wish to use this product. This is the product that the Claimant claims in its damages calculation canola growers would have continued using

13:58 until 2022, and this is the view that's being expressed in 1998.

The Claimant itself acknowledged again and again in contemporaneous internal documents that it was the canola industry that was seeking the withdrawal agreement. This is a document that was generated at the end of October of 1998 by the Claimant's Canadian business unit Gustafson. Gustafson and other Registrants of canola seed products have recently been contacted by the Canola Council of Canada and by the CCGA regarding expressed concern over the threat of potential trade restrictions and negative controversy relating to seed protectants use in the production of canola. As a response to this threat, both the CCC and CCGA have requested that all Registrants of canola seed protectants participate in a plan to voluntarily remove lindane as an insecticide for control of flea beetle.

Moreover, Claimant's allegation that PMRA forced it or anyone else into this voluntary industry-sponsored phase-out is flatly contradicted by the Claimant's own contemporary documents. Here we have an E-mail of 1998. Again, this is Bill Hallatt, who the Claimant has not called in this arbitration, talking about his discussion with the Canola Council in October of 1998.

Tony Zatylny, at the Canola Council of Canada has expressed concerns regarding the potential trade issues with

14:00 the U.S. for canola that has been grown from seed treated with lindane. He has met with the EPA and the U.S. Canola Producers Association and with PMRA in Canada to negotiate what he views as a solution. He has come to us and asked that all Registrants, including ourselves, agree to voluntarily remove, withdraw lindane-based products registered on canola from the market.

And this led to--yes, as you see at the end of this, the Claimant, again in its own document in October of 1998, is saying PMRA will not act without our agreement. Voluntary withdrawal must be by unanimous agreement of all Registrants. All Registrants with the exception of ourselves have apparently agreed.

And again at the end of this document, note that this is not a regulatory action by PMRA, but rather the expressed wish of a grower group. This is how we lost Alar and Omite in Canada, primarily due to actions in the U.S. and the reaction/fears of grower groups who export to the U.S., of new trade barriers being raised, and the wholesomeness of their commodity being questioned both at home and abroad.

And as you see above there, it says if industry is adamant in requesting voluntary withdrawal, there may be no alternative. This is their customers asking them to do something to protect the entire industry.

If we move on to the next document, we'll see the

14:01 terms of the Agreement that was established in November, on November 24th, 1998, between the Registrant, the four Registrants including Chemtura, and the members of the Canola Council of Canada. There are three elements to this agreement.

One, the Registrants will voluntarily remove canola, again voluntarily, from labels of registered canola seed treatments containing lindane by December 31, 1999. All commercial stocks of products containing lindane for use on canola and lindane-treated canola seed cannot be used after July 1, 2001, so they are contemplating a three-year phase-out.

And then the third point, the PMRA and U.S. EPA will continue to work with Registrants to facilitate access to lindane replacement products. And that reflects the facilitating and supportive role that PMRA and--that PMRA was proposing to take if, indeed, this agreement was voluntary.

If there was any doubt whether Chemtura agreed to this plan, on November 26, 1998, Bill Hallatt of Claimant's Canadian business unit Gustafson wrote back to the CCC providing comments on a draft press release announcing the VWA. Mr. Hallatt's version of that press release, so this is the first title, Mr. Hallatt's version of that Press Release, we move to the next document, states, "Manufacturers of lindane-based canola seed treatments have agreed to a request by Canadian Canola Growers Association for a voluntary removal of the insecticide lindane from its use in seed treatments for

14:03 canola."

PRESIDENT KAUFMANN-KOHLER: Can I just ask you what exhibit number this is.

MR. DOUAIRE de BONDY: Yes. This is Exhibit R-363.

PRESIDENT KAUFMANN-KOHLER: R-363. Thank you.

MR. DOUAIRE de BONDY: And just to show again the approach the Claimant was taking in relation to this Voluntary Agreement, if we move to the next document, this is a memorandum from the Claimant of the 21st of December, 1998.

And if we look to the second paragraph of this document, it first says: "Gentlemen, please find attached a copy of a letter provided to PMRA regarding voluntary withdrawal of lindane. This letter is not to be shared with industry. We have requested several regulatory concessions and do not wish to share this with our competitors. The position we are taking publicly is, we have agreed to the voluntary withdrawal of lindane by January 31, 1999, at the request of the canola growers."

And I think what you will see when you look at the record is that there was an agreement in place, and the Claimant took this as an opportunity to seek to extract concessions from the PMRA improper regulatory concessions, including a concession that the PMRA commit to registering products that the PMRA had not even yet received, let alone reviewed.

14:04 As the Claimant's Rob Dupree noted in an internal E-mail of February 8, 1999, "The conversation I had with Wendy Sexsmith, PMRA, last Friday indicated that all Registrants of canola seed treatments containing lindane were on board for a voluntary withdrawal of these products. I expect these dates to be confirmed in the letter PMRA plans to issue to all Registrants. PMRA is not taking any action to cancel these registrations. This is a Voluntary Agreement by all Registrants."

The Claimant did continue to assert conditions that it was trying to impose in relation to this agreement through to the end of October 1999, and what you will see when you look at that last letter was that those conditions were actually consistent with the terms of the Voluntary Withdrawal Agreement, and otherwise were referred to things to which the PMRA already committed to do or referenced the potential that lindane might pass review, positive review, in both Canada and the United States, and get a tolerance in the United States, and those things never happened.

There are a few more documents following on this, which again show the Claimant consistently mentioning the voluntary nature of this agreement. Here, an E-mail of the sixth--the 28th of June, 1999, "Follow-up meeting planned for October 5th to assess if all Registrants are still on board for voluntary withdrawal. If any Registrant backs out, all

14:06 Registrants will back out." This is what the Claimant actually understood at the time about the nature of this agreement, and the Claimant this morning, Claimant's counsel mentioned, well, this was an agreement in principle. Of course, over the course of 1999, replacement products were being considered. This was the first year of the phase-out, and the actual date for the change of the labels removing canola was to be announced as of the beginning of or, rather, the label requests were to be filed November 1st, 1999, so up to that date, and especially in October of 1999, the Claimant sought to change terms and extract concessions. But that doesn't change the fact that there was an agreement in principle as of November 1998.

We will just go on to one further document of this nature. Here is Rob Dupree of the Claimant referring to an agreement of stakeholders in June of 1999. In general, everyone is still on Board. Additional meeting planned for October 5th to reassess if stakeholders are still committed. This is an all-or-nothing agreement. If one company bails out and decides to continue selling the product, the deal is off, and all stakeholders will pull out of the Agreement."

In the end, the Claimant sent in its request for voluntary label changes along with the other Registrants as of November 1st, 1999. It did so not because PMRA forced it to do this, but because it recognized that the step was in its own best interests and, indeed, in the best interests of the entire

14:07 industry.

As a result of the VWA, rather than facing an immediate cessation of the use of their product, Chemtura gained an additional full three years of lindane product sales. Moreover, during these three years the PMRA registered two versions of the Claimant's replacement product Gaucho a full year before that of any of its competitors. Nothing in this narrative demonstrates a violation either of the customary minimum standard of treatment nor, indeed, of the incorrect test the Claimant substitutes for the customary minimum standard.

I will next move to the second question under this issue of the Voluntary Withdrawal Agreement. Was the PMRA's agreement to facilitate this voluntary industry agreement a repudiation of its statutory mandate, exposing the Claimant to fundamental unfairness? Here, again, the Claimant has failed to make out any case.

The steps PMRA was asked to undertake to facilitate this plans were all consistent with its mandate. What was it asked to do? One, it was asked to process voluntary changes to lindane Product Labels removing canola. This was consistent with its regulatory role. It was asked to allow a phase-out period for lindane use over three years. This is also consistent with the proper exercise of Common Law ministerial discretion, enforcement discretion.

14:09 It was, third, asked to consider replacement products during the phase-out period. The consideration of pesticides for registration is part of PMRA's core mandate.

As for PMRA's contacts with the U.S. EPA, there was again nothing improper here. To the contrary, the PMRA in contacting EPA was acting responsibly to help manage a crisis in Canadian agriculture, whose outcome always depended in the end on the Voluntary Agreement of the growers and of the Registrants. The PMRA and EPA's contact principally addressed not the specific issue of lindane, which was being managed through this industry-led voluntary withdrawal, but rather the systemic need to harmonize pesticide Regulations more generally for seed treatment. Rather than just focusing on this immediate issue, they focused on the systemic issue that lindane was pointing to. That is what governments do.

If you go back to that October 2nd, 1998, memo, where the Claimant has pulled out one extract, you will see that much of that memo actually focuses on these harmonization initiatives. The other thing the Claimant didn't draw your attention to this morning on that October 2nd, 1998 memo, which was never issued in a final version, was with regard to the withdrawal of lindane, in a previous paragraph PMRA says it cannot commit to that withdrawal or if that withdrawal is to take place, it is to take place within the context of the Commission on Environmental Cooperation process for considering

14:10 multilateral movements or actions with regard to pesticides. I'm sorry, I don't have it in front of me right now, but in any event that leads to a process of the nomination of lindane for a North American Regional Action Plan, and that North American Regional Action Plan was adopted in November of 2006. In other words, what that document is pointing to is a process which took place between 1998 and 2006 to eventually see if lindane could be proposed for this kind of a plan. This was a public process with input from multiple stakeholders, not some kind of pact between the EPA and the PMRA to get rid of lindane.

Far from being a violation of PMRA's mandate, what PMRA was being asked to do under the VWA was perfectly consistent with that mandate. It concerned some of its core responsibilities and showed no intrinsic unfairness to the Claimant. This can hardly be considered a violation of the customary minimum standard of treatment, which would require for a violation an outright repudiation of a State Agency's mandate and legislation resulting in gross unfairness to the Claimant.

It is also not a violation under the Claimant's much lower threshold of acting outside of statutory authority, which, in any event, does not reflect the customary standard.

My next point is--and this is the third of four questions under the VWA, if the Agreement was voluntary, and if it was proper for the PMRA to support it, was the Claimant

14:12 singled out under these measures for some specially unfair treatment? Here again, the Claimant has made out no case. As a result of the voluntary withdrawal of lindane, the industry, including the Claimant, enjoyed a three and, indeed, four-year extension of lindane use on canola, rather than the immediate cessation of use threatened by canola in--which would have arisen out of the canola industry response to potential U.S. application of its pesticides legislation.

Furthermore, a year into the phase-out period, transition period, in 1999, PMRA registered the two submitted versions of the Claimant's lindane replacement product Gaucho. That was the same product Chemtura subsidiary Gustafson, Inc., was seeking to promote in the United States. And what you see on the screen are the two announcements that the product submitted is eligible for registration, July 27, 1999. So, as I have noted, the PMRA registered Chemtura's Gaucho a full year before it registered any other competitor's product.

The Claimant has in relation to this allegation suggested that PMRA acted unfairly not by treating it unlike other Registrants, but precisely because it was treated the same. The Claimant has suggested that PMRA should have acted in a manner that preserved its market share. In essence, the Claimant is saying it is more equal than other Registrants. This was reflected in its attempts to extract particular concessions from PMRA after the Agreement was reached and

behind the backs of its competitors.

The PMRA has no duty as a public regulator to preserve any particular Registrant's market share and to be dictated in its actions by that consideration. Rather, it is up to the Registrants themselves to develop and seek registration for and market products. Failing to regulate to preserve market share does not constitute a violation of the international minimum standard of treatment.

I will note that the Claimant's replacement product that it says all-in-one replacement product, Gaucho CS FL was actually not submitted to the PMRA until a year later, in March of 2000. And even that application was incomplete. It was not completed actually until April of 2001, if memory serves. In any event, in 2001. And this is the product which the Claimant says should have been registered before Syngenta's Helix product, which was submitted to the PMRA in November of 1998.

Chemtura was not exposed to any particular unfairness as between itself and other Registrants. Canada would note that any Claim regarding alleged failure to grant national treatment or MFN treatment with regard to replacement product registrations has not even been pleaded by the Claimant, and would have been--would have arisen under 1102 or 1103.

But in any event, as Suzanne Chalifour will attest, the Claimant's replacement products were not treated with any particular disfavor in the registration review. Indeed, the

14:15 very fact that Chemtura's product was registered a year before that of any of its competitors should be answer enough. The Claimant says, well, those products we submitted were not all-in-one. They only had the insecticide, and that wasn't enough. It was the Claimant that failed to develop an all-in-one version of its products in time to have it submitted in 1998, as had been discussed in the November 1998 meeting. And I will come back to this point because with regard to the voluntary withdrawal, the PMRA made no commitment that any product would be registered at all. It needed to review these products to determine if they were safe.

In short, Chemtura was not treated by PMRA unfairly in connection with the VWA. Its conduct would breach neither the customary minimum standard nor the incorrect test the Claimant has wrongly substituted for MST.

I will now move to the last point under the Voluntary Withdrawal Agreement. Did the Claimant have any legally enforceable expectations in relation to this Voluntary Agreement? If so, did PMRA act in violation of these expectations? The answer is in both cases, no. From the perspective of Article 1105, all of the Claimant's allegations concerning the violation of its alleged legitimate expectations are strictly speaking irrelevant. To the extent the doctrine of legitimate expectations has been recognized at all, and it is not part of the customary minimum standard, it has been in

14:17 connection with objective representations made by a country at a time an investment was being contemplated, representations which induced the prospective Investor to invest, and which the country in question violated.

By contrast, the Claimant here is seeking to rely on its subjective impression of alleged conditions made over 30 years after its initial investment in Canada. This reflects no known standard. Indeed, this entire episode of so-called "conditions" reflects very badly on the Claimant. What is amply clear from the record is that after agreeing among stakeholders that it would support the VWA, the Claimant repeatedly attempted to go behind the backs of industry to seek to extract preferential terms of the PMRA. And this was in relation to a situation that was not even of the PMRA's making. PMRA does not draft U.S. pesticides legislation. It does not apply U.S. pesticides law. This was a situation the canola industry was facing and was trying to find some way to manage with the support of the Registrants, or so it hoped.

And the Chemtura took this opportunity to seek to extract concessions from the PMRA, failing which it repeatedly threatened to scupper this entire deal.

The PMRA's consistent response was that it could not grant the Claimant any special concessions. From the PMRA's point of view, the most objectionable of those demands was that the PMRA guarantee in advance of any review that Chemtura's

14:18 lindane replacement products would receive registration by a specific date, or at all.

What does the Claimant describe as the conditions it imposed relating to the Voluntary Withdrawal Agreement? It argues, one, that the date for last use of its lindane seed treatment products was not July 1st, 2001, but that its products be used thereafter with no time limit.

Two, it argues that PMRA guarantee an expedited review of its lindane replacement products.

Three, it argues that PMRA undertook to complete its scientific review of lindane in collaboration with EPA and to complete its review by the end of 2000.

Four, it argues that PMRA undertook to maintain its other lindane-based products.

Five, it argues that PMRA undertook to reinstate its registration for lindane use on canola if U.S. EPA granted lindane a registration or a tolerance for canola.

I will add that Claimant seems to change its position on this again this morning because the other proviso to this was if both PMRA and EPA found lindane to be safe. And that's the last condition.

A quick review of the record confirms that Claimant's alleged conditions are either misstated or never materialized. Canada has extensively briefed this issue because the Claimant's entire Claim was built around the mistaken legal

14:20 notion that it had legally enforceable legitimate expectations arising out of these alleged conditions, so I will hit only a few highlights here.

Regarding the July 1st deadline, July 1st, 2001, was expressly stated as part of the VWA from the very beginning and repeated again and again thereafter. There is no doubt the Claimant understood the July 1st, 2001, deadline was to apply both to the sale and to the use of lindane seed treatment products. This is confirmed again and again in internal communications to the Claimant.

But without even going to those communications, we will look at one, the Claimant's own letter of October 28th, 1999--I'm sorry, October 27th, 1999, upon which it has so much relied, plainly states that the last date for use of the products is July 1st, 2001. All stocks of Uniroyal's products containing lindane for use on canola-rapeseed are allowed to be used up to and including July 1st, 2001.

Now, this was a canola lindane seed treatment. If it was going to be used, it was going to be used as a canola lindane seed treatment. It wasn't going to be used as a mixer in cocktails parties in Connecticut. It was a canola seed treatment, lindane seed treatment, allowed to be used up to and including July 1st, 2001.

In an E-mail of June 28th, 1999, the Claimant's Rob Dupree reporting on a recent meeting of VWA stakeholders

14:21 confirmed that stocks of carryover product and seed have 'til July 1, 2001 to be used up. If small quantities are still entering marketplace after that, PMRA is unlikely to take action.

The Claimant's related allegation that PMRA issued threats against growers in 2001 relating to lindane use, thereby affecting its lindane sales in the final year of the phase-out is also not made out. The Claimant's allegations that PMRA threatened end-users effectively scaring them away have no more credibility. As Rob Dupree noted in this same E-mail based on his meeting with PMRA, a question was raised about enforcement of production cutoff after December 31, 1999, PMRA has no mechanism to enforce and is relying on honesty of Registrants, and I would commend you to the Affidavit of Jim Reid, who reviews the very limited steps that PMRA took at the end of the July 2001 phase-out period simply to determine how much of the product was left in the market. The Claimant spoke at length this morning about the extension of the use of the treated seed into the 2002 season. At the end of the day, PMRA did allow that to take place because it realized it was the best way to get rid of the end, the last of the treated seed rather than dumping it all in one place and creating an environmental hazard.

ARBITRATOR CRAWFORD: It says PMRA has no mechanism to enforce. Elsewhere they're talking about substantial fines.

14:23 I'm not sure I understand.

MR. DOUAIRE de BONDY: What happened was there was a meeting of November of 2000, at which I believe it was one of the seed treatment representatives asked what was the legislation, what did the legislation provide, and the PMRA representative, Jim Reid, said this is what the legislation provides. But there are also other documents to which we have referred in our submission--in the first place, in that regard, if a national regulator and if a Compliance Officer of a national regulator is asked what does the law provide, the national regulator will say, well, this is what the law provides. It's not going to say, well, don't worry about that. We are not going to apply it. However, there are many references in the record to PMRA confirming that, or members of the seed treatment and the growers and the Registrants' understanding that it was only in the case if a grower was stockpiling treated seed, was flagrantly trying to violate the last date for use, that any action might potentially be taken, but it was also well understood in the industry that PMRA has very limited compliance, takes very limited compliance steps at the level of fines. At most five people might be prosecuted in a year. Again, I would refer you to the Affidavit of Jim Reid, who reviews this in detail.

And so, there is no credibility to the notion that either growers or seed treaters were walking around in a fear

14:25 of 200,000-dollar fines. And, in fact, Ms. Buth will speak to this issue when she testifies later this week.

The other condition regarding the registration of a replacement product has been--I have already spoken to this. The PMRA repeatedly confirmed that registration of replacement products could not be guaranteed and that there was no unlimited fast track for this process. At the November 24th, 1998, meeting, at which there was an agreement regarding the VWA, Wendy Sexsmith of PMRA made no specific commitment as to the timing or the number of reviews. This was reflected in the fact that the November 26, '98, confirmation of that meeting spoke of replacement products only in general terms.

If we could move to the next document, please.

The Pest Management Regulatory Agency and the U.S. Environmental Protection Agency will continue to work with Registrants to facilitate access to lindane replacement products. There is no commitment there as to time or as to the number of products that will be reviewed.

If we go to the next document, the PMRA knew that reviewing new replacement actives was a substantial undertaking and would have to be managed in light of all other competing demands on its limited resources. It therefore made only the following general commitment in a letter of 23rd February, 1999. The Agency currently has registration submissions on hand for three active ingredients that may emerge as viable

alternatives for lindane on canola seed dressing applications.

As stated in the lower end of the letter, this will entail priority review of each of the three current candidates and continue to advance only those that have a complete and reviewable submission, with a view to having at least one lindane alternative available for the 2000 crop year. The agency will not entertain additional candidates within these time frames. To do so would jeopardize the chances of having any candidate emerge successfully and on time to be of value for the year 2000.

Now, at this point, which products did the PMRA have in light of these or with reference to these three products? The three current candidates. Chemtura had submitted the two versions of its Gaucho product. Syngenta had submitted Helix, and Zeneca was proposing to submit a third product, which, at the end of the day, was never successful, did not receive registration because I think they didn't--weren't able to pull together all the data.

And so, those two replacement products which were actually submitted to the PMRA in November 1998 were registered both on--the announcement was made July 27, 1999, as I said earlier. The PMRA repeated to Chemtura specifically in a letter of March 25th, 1999, "The Agency cannot establish the outcome of an assessment in advance of the review process, and therefore cannot predict whether Uniroyal and Gustafson will

14:28 have a registered product replacement."

The PMRA at no time made any open-ended commitment to review every and all replacement product whenever they might be submitted.

ARBITRATOR CRAWFORD: May I ask, approximately how many pesticide applications did the PMRA get in a year?

MR. DOUAIRE de BONDY: Well, that is a good question. I don't know as I sit here, but I'm assuming it's in the hundreds, if not thousands.

This is part of the problem, is that the Claimant thinks it can continuously jump the queue. Even to review these two replacement products in 1999, the PMRA was certainly giving them priority over other products that were already in the queue. The Claimant then comes along in March 2000 and says, well, we want to jump the queue again, and the PMRA at that point says, well, we're sorry. I mean, it has a responsibility not only to the Registrants of lindane replacement products, but to the potential Registrants of a huge variety of products, as your question suggests. And the question is how to balance all of those demands on the PMRA's limited resources.

If we could go on to the next document, the Claimant was suggesting earlier today that the registration of these two replacement products did not actually count for purposes of the Voluntary Withdrawal Agreement. This is an E-mail from

14:30 Mr. Ingulli of the 13th of July 1999, who is saying to Rob Dupree again, who hasn't been called, my interpretation of the mail which follows is that Gaucho will be registered for canola before the 30th of December '99, causing us to proceed with a voluntary cancellation of canola uses. Is this correct?

Rob Dupree. This is correct. I was contacted by PMRA yesterday, and they informed me the review of the two Gaucho formulations is nearing completion. The two products will be granted a full registration for one year which will have to be reviewed. A full registration will be approved once the residue data from Canada has been reviewed.

And he says, Gustafson will be in a position to sell product once the certificate of Registration has been granted. The process should take six to eight weeks to complete. In fact, the announcement was made on the 27th of July 1999. The first of these two products was registered on the 26th of October, a temporary registration on the 26th of October 1999, and the second in November of 1999. So the Claimant itself here is admitting that the registration of these two products will satisfy this condition.

I would also note that the letter of October 27, 1999, upon which the Claimant so much relies makes no reference at all to the registration of replacement products. It says that letter is the contract between itself and PMRA, and that letter makes no mention of the registration of replacement products.

14:31 The Claimant's related allegations regarding--relating to alleged preferential treatment of Helix have no more merit, and I have referred to these--to the reasons why before. The PMRA registered. Chemtura submitted Gaucho products a full year before Helix. In order to obtain registration, Helix was required to submit an entirely new and expensive study. And the review of Helix ultimately took two years, which is hardly fast-tracking a registration.

As Canada has showed, the length of time taken to register the Claimant's all-in-one version of Gaucho--this is the one that they partially submitted in March of 2000, in large substantial part resulted from the Claimant's own delays.

What the Claimant's internal documents have also revealed is that Chemtura's product was, by its own admission, outperformed in the marketplace, not due to any failing on the part of the PMRA, but due to the Claimant's own failure to compete. I realize I have about 10 minutes left.

I will just deal with these few other conditions, what the Claimant reviews as conditions very quickly.

Third, regarding the scientific review of lindane, as we said earlier, this was not a mere condition of the Voluntary Withdrawal Agreement or this letter of October 27th, 1999, but something which was already in the--already in the works, or had already been committed to by Canada and had begun in June of 1998, so it was hardly a condition of that agreement alone.

14:33 The other thing that struck me this morning about the Claimant's counsel's comments was the expectation that the outcome of that review would be positive. In the situation where many equivalent regulators had already taken the decision against this product, that was hardly a reasonable expectation. In fact, there are documents in the record that show that the Chemtura knew that this could very likely fail upon review, which it did for legitimate safety reasons.

With regard to the other named products, the Claimant is suggesting that PMRA committed to maintain those products irrespective of the outcome of the Special Review, which is an absolutely unreasonable understanding of what the PMRA was stating. The PMRA had stated in its 15th March 1999 letter--rather announcement of the Special Review--that all registered products will be subject to the outcome of the Special Review. The Claimant is suggesting PMRA was committing to maintain the registration, irrespective of whether it found in its scientific review that the product was unsafe.

And regarding the potential reinstatement of the Claimant's lindane products on canola, the simple response to this alleged condition is that it never materialized. Canada's Special Review reached a negative finding about lindane use on canola, and the U.S. EPA never granted either a registration or tolerance for lindane use on canola. As I mentioned earlier, the Claimant misstated the nature of that condition. What the

14:34 PMRA at best agreed to was if pending the outcome of its own Special Review, the Claimant happened to get a tolerance from the United States, it would allow the registration on canola to be used to be reinstated through an administrative process, but that was also always subject to the ultimate outcome of the Special Review, and so it was at best a very tiny window which never materialized.

The PMRA never committed to maintaining the Claimant's canola product, lindane product registrations, irrespective of the outcome of the Special Review.

I would also add that Claimant's attempt to portray a deep gulf between the U.S. EPA and the PMRA on lindane is itself exaggerated. And I have mentioned this morning that we put forward the evidence of Dr. Lynn Goldman, who is the U.S. EPA's Assistant Administrator for Toxic Substances from '93 to '98. Dr. Goldman has looked at the U.S. EPA's review of lindane after her departure from the organization. She has concluded that U.S. EPA's interim decision, 2002 decision, was not the green light the Claimant suggests. Instead, it removed formulations, imposed new protective requirements, required further data, and made specific negative findings about occupational exposure on canola.

She's also detailed how the Claimant tried and failed to obtain a lindane registration or tolerance for canola on the U.S., and as you will see from the record, as of 2006, the U.S.

14:36 EPA had determined that the registration of no products could be maintained, and prompted the Claimant to withdraw its registrations, failing which it would cancel those registrations, and that took place in the summer of 2006.

To sum up on this point, the Claimant's entire case of legitimate expectations is in the first place based on an error of law. The doctrine is not recognized under customary minimum standard of treatment. And even to the extent it's been recognized under different standards, it is with regard to objective undertakings that induced an investor to invest rather than in relation to statements made 30 years after the investment was made.

Moreover, from a factual point of view, the Claimant has either misstated the alleged conditions or the PMRA substantially lived up to any undertakings it made in connection with the VWA. Canada's conduct under this question cannot conceivably violate either customary MST or the incorrect standard this Claimant would have this Tribunal apply.

I will come to the end of my Opening Statement with just a few brief words on the 1103 standard, and after that 1110. With Article 1103, which the Claimant didn't even mention this morning, our simple submission on this is that the Claimant has used Article 1103 improperly as an attempt or as a means to try to get around the Note of Interpretation, and the

14:38 minimum customary standard imposed under or that is upheld under Article 1105, and we will come back to this in our legal submissions.

With regard to 1110, here we see there are three questions. The first question is whether the Claimant has been deprived of its investment. If the Tribunal agrees with Canada that the answer to this question is no, Chemtura's case fails on this basis alone. Chemtura's Article 1110 Claim also fails for two other reasons:

First, the voluntary character of the Voluntary Withdrawal Agreement prevents the Tribunal from making a finding of expropriation, since the coercion necessary to a breach of Article 1110 is lacking.

Second, the PMRA's decision to otherwise phase out remaining registered uses of lindane, based upon its scientific review, is a valid exercise of Canada's police powers.

And I will just come to a final word about damages. Here, I would simply note that the Claimant's damages Claim are premised on a kind of fantasy in which lindane remains registered around the world and in all international--and all international and North American efforts to restrict and eliminate lindane use are ignored. The Claimant would have this Tribunal assume away not only Canada's alleged measure, but every step taken against lindane over the past decade.

Our three points here with regard to their damages

14:39 assessment are that the damages expert has improperly accepted a series of counterfactual and speculative assumptions. The damages analysis assumes away not just Canada's measures, but all unfavorable developments affecting the market for lindane. Real facts that introduce overwhelming market uncertainty, such as the international ban on lindane and the rejection of the product by growers.

Third, the damages analysis also entirely lacks proximate cause to Canada's alleged measures in that it is entirely dependent on the actions of another national regulator, the EPA. The Claimant started this morning with comments on the EPA and U.S. pesticides legislation. Canada is hardly responsible for the application of that legislation or the fact that without a tolerance or registration, lindane-treated products could not enter into the United States.

And as you will hear from JoAnne Buth this week of the Canola Council of Canada, Canadian canola farmers, having lived through the situation in 1998, were not interested in using lindane if it did not have a registration or a tolerance on both sides of the border, and Claimant's damages analysis accepts that assumption.

I have now concluded Canada's opening remarks. Subject to any questions at this point from the Tribunal, I now cede the floor to Claimant's witnesses of fact.

14:41 Thank you.

PRESIDENT KAUFMANN-KOHLER: Thank you.

Any questions at this stage?

Yes, please.

ARBITRATOR BROWER: I want to take you back to the Aarhus Protocol, just so I can understand Canada's position.

Your slides are not numbered, so at least not everything has been put before us, but what I'm referring to is Exhibit WS-9, Annex 2, substances scheduled for restriction on use. That was among your papers towards the beginning.

MR. DOUAIRE de BONDY: WS-9, yes.

ARBITRATOR BROWER: It comes right after all those colorful maps on worldwide end of lindane.

Annex 2, is this the list of items to the Protocol which effectively are to be addressed by Parties to the Protocol?

MR. DOUAIRE de BONDY: That's right. If you look on the screen now, you see Annex 2, substances scheduled for restrictions on use. There was an Annex 1, which was products scheduled for I think the word is elimination. This one is restrictions, and so you see that there is an entry for HCH above the one for lindane. Technical HCH is restricted to use as an intermediate in chemical manufacturing, so it's not for direct use by Registrants.

And then under that, you see products in which at

14:43 least 99 percent of the HCH isomer is the gamma form; i.e., lindane. Mr. Somers talked at some length this morning about isomers, so the gamma isomer.

ARBITRATOR BROWER: I understand that, but it's lindane we're talking about, and it says it's restricted to seed treatment which is largely what this case is about--

MR. DOUAIRE de BONDY: That's right.

ARBITRATOR BROWER: --it seems.

So, am I to understand this to mean that under the Aarhus Protocol seed treatment was not to be further addressed or abolished?

MR. DOUAIRE de BONDY: No, actually when you see--it's unfortunate the pop-up eliminates, but these restricted uses are subject to certain conditions, and the conditions are the column on the right, which is all restricted uses of lindane shall be reassessed under the Protocol no later than two years after the date of entry into force.

ARBITRATOR BROWER: Okay. So, that's reassessment, but that does not imply a result?

MR. DOUAIRE de BONDY: No, not at all. And that was--Canada fulfilled that in commitment to reassessment in the Special Review. The same month that this Aarhus Protocol was signed by Canada, that's the few documents on, and we can certainly provide numbering for this bundle, and sirlox (ph.) it as well. My apologies for that. A few documents on you see

14:44 Exhibit WS-91, a planning sheet from the PMRL tentative Strategies and Regulatory Affairs, and that's June 1998, and it says Special Review of Lindane to undertake a reassessment of all existing uses of lindane as required for compliance.

And as I have said, PMRA began a Special Review of Lindane with no, you know, particular view as to the outcome. The scientists were involved in that review were not dictated you shall find this or that. They were not the unit involved in this subsidiary Voluntary Withdrawal Agreement issue. They reviewed the pesticide, and like scientists around the world found that its use led to unacceptable health risks.

ARBITRATOR BROWER: We were taken by your colleague across the room this morning to certain documents indicating that the position of Canada at the time effectively was to protect and maintain the use of lindane for seed treatment, and the document you showed us, which has 021 in the lower left-hand corner and is just the next one I think after the one I just took you to, has October 1997 at the top, appears to be an internal Canadian note with respect to its position in regard to the what became the Aarhus Protocol, the last sentence reads, "Canada has not supported the inclusion of lindane in the Protocol." In other words, do I understand the position of Canada going into the Aarhus Protocol meetings and throughout the Aarhus Protocol meetings was that lindane should not be subject to reassessment within two years?

13:48 MR. DOUAIRE de BONDY: The initial view of Canada under the Aarhus Protocol, I mean, where they started was, I have noted Canada knew that there were existing registered uses of lindane in Canada, and therefore did not wish to--couldn't commit legally to eliminating these uses.

ARBITRATOR BROWER: But it was a reassessment.

MR. DOUAIRE de BONDY: Yes.

And so what I think these documents show, as I mentioned, there was scientific uncertainty as of 1997 about the volatility of lindane when used as a seed treatment, and there were--but there was new information that was being released.

If you look at the entirety of the document, I apologize if the entire thing isn't there, if you look on the next page, Canada already taking note of this new information and coming to a position where it could agree to the Reassessment of Lindane both on the basis of the very strong views of its counterparts in those negotiations, but also because of elements which under Canadian legislation would prompt a review in Canada.

If you look to the next page, at the bottom of the page, it is also important to recognize that two new reports describing the results were released in June. Results show that HCH, including the gamma isomers, was the most abundant POP in the air, seawater and rivers in the North.

14:48 ARBITRATOR BROWER: We don't know what the next page is.

MR. DOUAIRE de BONDY: This page is part of the Briefing Note.

ARBITRATOR BROWER: Right.

MR. DOUAIRE de BONDY: We were not opposing the reassessment. I think what we had to determine is how could we do this in a manner that was consistent with domestic Canadian legislation.

ARBITRATOR BROWER: Well, the position was Canada has not supported the inclusion of lindane in the Protocol.

MR. DOUAIRE de BONDY: Because the inclusion was, at least initially proposed, as a proposal for inclusion for restriction.

And it's difficult to present this on the basis of the one sole document because I think if you look in the suite of documents relating to, which are in the hearing bundle, if--you will see new information coming to light, Canada responding to that information, and suggesting, well, if we can't agree to--we certainly can't agree to eliminate because that would be contrary to domestic legislation, but we can--recognize the concerns that are being raised.

And if you look--if you look above the next page, the second paragraph, second-to-last paragraph, "It is important to note that during the June negotiation session agreement was

14:49 reached on reaching numerical bioaccumulation as guidance rather than a strict criteria. In light of this, the argument that lindane is borderline should not be included in the initial list is weakened."

So, Canada was taking note of the new information that was being presented, the new approaches. And again, to go back to the idea that this was Canada trying to act responsibly, not having a settled position about lindane, but agreeing there were a lot of concerns being raised and we should review this, and going into a special review based upon these commitments.

ARBITRATOR BROWER: Would I be wrong to think that up to the time of the Aarhus Protocol, Canada was not interested in having it addressed by the Aarhus Protocol, in part, because of the substantial canola production in Canada largely exported I assume in what appeared at the time to be the importance of lindane to the prosperity of that sector of the economy?

MR. DOUAIRE de BONDY: I have honestly seen no evidence of Canada's position being dictated by the need to support this. What they do note is this is a registered product and it's in use, and we can't simply eliminate--agree to eliminate a product without a review, but...

ARBITRATOR BROWER: I was wondering if it was simply a question of reassessment, and everything that was going on in the world that you have taken us to is going on in the world, why would Canada oppose a reassessment within two years?

14:51 MR. DOUAIRE de BONDY: I don't think Canada did oppose reassessment in two years. In fact, it was--you know, proposing a longer phase--longer time line for that reassessment in the first place. I think in first place it's proposed 2005, and then the final compromise was that it would be done within two years of the final ratification of the Protocol.

The other thing to keep in mind is that by the late 1990s we are not talking about smooth sailing for lindane in Canada since the 1930s. Most of uses of lindane had already been withdrawn. The remaining few uses beyond this seed treatment for use were minor, and--so it wasn't like Canada had been promoting lindane for years.

ARBITRATOR BROWER: Your point was the statement in the negotiating paper, negotiating instructions was related to restriction rather than reassessment.

MR. DOUAIRE de BONDY: I'm sorry--well, the restriction--they could not agree to restrict in the sense--

ARBITRATOR BROWER: Right.

MR. DOUAIRE de BONDY: In fact, if you look at that list on Schedule 2, or Annex 2, the restrictions or restricted uses are, to my knowledge, the remaining registered uses.

PRESIDENT KAUFMANN-KOHLER: Does that answer your question?

ARBITRATOR BROWER: Yes, I'm done on that one.

14:53 Apart from the fact that I'm slightly bemused, but that's life, that what is referred to initially as a trade issue is being dealt with in the PMRA, which is in the Canada Health. These things happen.

One question: I understood we are talking about three Gaucho products, and you have repeatedly referred to the two that were submitted as being very quickly approved, and I just want to understand the difference between the two because we were advised this morning that what they were really interested in was a third Gaucho product, and that took a long time.

The distinction from the position of the PMRA is the first two were products from which lindane was removed and otherwise were the same, whereas the one they're interested in was a new application?

MR. DOUAIRE de BONDY: No, actually, all three products were products that were based upon, if memory serves, the active thiamethoxim--imidacloprid, right, and this is a pesticidal agent within--and the issue was simply that only the first two had been submitted to the PMRA. They were submitted to the PMRA in late 1998. One had already been registered in Canada for use for export, and then the other was a new formulation. So, those two Gauchos, which are both based on a lindane replacement, which is another pesticide, imidacloprid, were Gaucho 75ST and Gaucho 480.

And then there was a third version of Gaucho, which

14:55 was an all-in-one, it was insecticide plus fungicide, which was only submitted to PMRA in March 2000, and even then that was an incomplete application. Further data was submitted in September 2000 and again into 2001.

And I could tell you one of the issues for a national regulator would be a registrant submitting an application with not everything in the application, and then going around and complaining to all who cared to listen that the PMRA hasn't registered our product for X number of years when, in fact, the elements that are required to assess the application haven't all been submitted.

But going back to your first point, the two Gaucho 75ST and Gaucho 480 were insecticide-only based on imidacloprid submitted late 1998, and both PMRA confirmed were eligible for temporary registration. The confirmation was sent July 27, 1999, and then the actual temporary registration granted October and November 1999.

And the temporary registration was granted simply because that's contingent upon the submission of the data that arises out of the use of the product, so that can't be--you know...

And the further version, Gaucho CS FL, which is the all-in-one insecticide-fungicide, which was submitted partially in November--March of 2000. From PMRA's perspective, you're asking us to jump the queue, jump the queue again, and you are

14:57 blaming the PMRA for the fact it took another two years to develop this formulated product, and indeed don't even have all the data.

So, to say that PMRA treated the Claimant unfairly with regard to a product it hadn't even submitted, it was saying that it should register for use before Syngenta's Helix product which was submitted in November 1998.

ARBITRATOR BROWER: I understand. If you would in some way be able to add the exhibit references to what's in your bundle we have been going through, to the extent that they're not there, it would be helpful because these are obviously things you want us to focus on mostly, and it's helpful to have the road map to find them.

MR. DOUAIRE de BONDY: We would be happy to do so. What we could do is take the bundle, add references and deliver them to you tomorrow.

ARBITRATOR BROWER: That's fine.

I had a couple of other questions to the other side.

PRESIDENT KAUFMANN-KOHLER: Of course.

ARBITRATOR BROWER: For this point, there was considerable emphasis on your part on bad faith or had a long-standing plan to get rid of lindane and so forth.

Does it make any difference really what the state of mind or the internal motive was on the part of Canadian authorities if, in fact, their science is sound, and lindane,

14:58 as a scientific matter, properly has been--received the treatment of which you complain?

MR. SOMERS: There are a number of elements in the Claimant's case about the behavior of the Agency in question here. In terms of where science was in question and the validity of the science was in question obviously, that's not what your inquiry goes to.

We would say, yes, that the state of mind of the regulator is an important question. Were the science in any event properly done, and you assign full meaning of the word, justifies measures, then no, that's the simple exercise of the State's regulating authority. And fairness and equity don't enter into it, but that's what the proviso that the science is--has all of the integrity that that word is supposed to carry.

In this case, though, there are more elements than merely science and more elements than merely lindane. There is the access to replacement products with the State as the gatekeeper in which science is not the only arbiter. There is various administrative and policy decisions that a State will take that have nothing to do with science that will allow it or prevent it from issuing permission, for example, for replacement products.

In this case, the competitive product that was approved, and we saw in the material provided by my friend at

15:00 least one replacement product will hit the market, that will be enough for the Agency at least at a minimum, also was an incomplete submission. So, that wasn't a science-based decision that the Agency made. It was an administrative one, it was a due process one, it was a fairness one, and a balance one. If the science objectively carried out and searchingly performed condensed lindane, we do not say a fairness or equity issue in customary international law arising from that.

ARBITRATOR BROWER: Okay. But you obviously have what I might refer to as a timing issue. Your position is that they treated Helix in a favorable fashion and effectively deprived you of market access to the timing.

MR. SOMERS: That's correct.

And we recognize, of course, as the record shows, that submission submitted on X date will--that's in para materia and subsequent ones will issue sooner if it's submitted in advance or completed in advance. So, that's why we do the calculation on the basis of days it took, not obviously the date--of absolute date of the issue of the Agency's response.

ARBITRATOR BROWER: Based on what you said, I suspect I know the answer to the next question, but we best hear it from you. Canada has taken the trouble to provide an expert opinion of Dr. Costa, which, as I understand it, basically says they got the science right, so--and they did it the right way. You have not submitted an expert statement taking the opposite

15:02 position. Is that because you simply feel whether or not the science is right is irrelevant to your case?

MR. SOMERS: No. Quite the reverse. We submit that Canada put a witness to editorialize on those three scientists in the Lindane Review Board exactly because they felt they had something to explain away in relation to that Review Board. We are content to take the Review Board scientists' conclusions and many days of hearings and these thousands of pages that our friend took us through on its face. We do not need to editorialize it or qualify it away or point to various sections where certain of the Special Review conduct was found to be generally acceptable. We rely on the Review Board decision itself.

ARBITRATOR BROWER: Okay. My last question relates to the canola growers. One could gain the impression that you were going to lose out on using lindane in Canada because the growers no longer wanted it because they felt it put them in a disadvantageous position in the market, so whatever happened, you would have been out of business in any event. It's partly an issue of causation and partly an issue of damages. What do you have to say on that point?

MR. SOMERS: We hope to get further information from the witnesses in the hearing onto the record, but at the outset, at least the record does show that the industry continued to use lindane to the last second that it was

15:04 available and then requested extensions beyond that last second in order to, for example, plant previously treated seed into 2002. So, for the Claimant's case, you know, that seems to me that the growers were voting with their wallets and with their actions in favor of lindane.

Sorry, I can't give you an exhibit number immediately, but there are documents on the record that we will be putting in evidence as well to show that canola growers were, in the words of their association, were willing to return to lindane if it was given a favorable tolerance. This isn't something that somehow had tarnished or tainted the reputation of lindane to the extent that the growers wouldn't touch t.

We also ask why the Voluntary Withdrawal Agreement, if the growers, as a group, didn't want to use lindane? No one had a gun to their head to do so. All they had to do is vote with their wallets again and pick alternate products which had the blessing of the market and so forth.

For the Claimant's part, this was not a grower in the sense of salt of the earth or actual people who used the product decision. This was the conjunction of the PMRA working with the counsel as ostensibly representative of the growers. But the actions of the growers themselves and of the market tell a different story.

ARBITRATOR BROWER: Those are my questions.

PRESIDENT KAUFMANN-KOHLER: Thank you.

15:05 Professor Crawford, any questions at this stage?

ARBITRATOR CRAWFORD: There was a separate canola growers association, I understand. What position did they take on the Withdrawal Agreement?

MR. SOMERS: Was that question directed to me, Professor Crawford?

ARBITRATOR CRAWFORD: Yes. That arises from the discussion you just had with my colleague.

MR. SOMERS: Yes. There is the Canadian Canola Growers Association, and it was as the name implies; and the Canadian Canola Council, which as I understand it, was not the growers themselves but predominantly those who bought off the growers and produced canola products from there. They are distinct associations. I won't pretend to know exactly their constitution or their raison d'etre, but there was some considerable overlap in membership. For example, the Secretary of one was the Director of the other in the person of Mr. Zatylny, that we will see later.

The record is--because of that overlap in administration, the record is confused or similarly overlapping in terms of the positions of these organizations on the issues in this dispute.

MR. DOUAIRE de BONDY: I'm sorry, could I pop in with a clarification?

PRESIDENT KAUFMANN-KOHLER: Yes.

15:07 MR. DOUAIRE de BONDY: Simply that the Canadian Canola Growers Association and Canola Council both supported an agreement of voluntary withdrawal, and the Canadian Canola Council also represents all stakeholders of the Canadian canola industry, including the canola growers themselves who at the time represented about 65,000 growers in Canada.

PRESIDENT KAUFMANN-KOHLER: Any other questions? No? Thank you.

I have no questions at this stage. I want to hear the witnesses.

So, we will now hear Mr. Ingulli; right? Let's take just a 10-minute break to give him time to get here and you get organized.

(Pause.)

PRESIDENT KAUFMANN-KOHLER: So, can we start? Good.

Good afternoon, Mr. Ingulli.

ALFRED F. INGULLI, CLAIMANT'S WITNESS, CALLED

THE WITNESS: Good afternoon.

PRESIDENT KAUFMANN-KOHLER: Before we start, can I have some time estimates from you, how long will you be for the direct examination?

MR. SOMERS: Except to ask the witness to adopt his statement, we have no direct examination.

PRESIDENT KAUFMANN-KOHLER: Good.

How much time for the cross-examination? Of course,

an estimate. You will not be bound by it, just for us to have some idea.

MR. DOURAIRE de BONDY: We are estimating an hour-and-a-half.

PRESIDENT KAUFMANN-KOHLER: Fine. Thank you.

Mr. Ingulli, for the record, you're Alfred Ingulli?

THE WITNESS: Yes, I am.

PRESIDENT KAUFMANN-KOHLER: You're retired since 2005?

THE WITNESS: January 1st, 2005, that's correct.

PRESIDENT KAUFMANN-KOHLER: And you act now as a consultant to Chemtura?

THE WITNESS: Yes.

PRESIDENT KAUFMANN-KOHLER: During the years that we are interested in here specifically, you were Executive Vice President, and you were in charge of the Crop Protection Division; is that correct?

THE WITNESS: That's correct.

PRESIDENT KAUFMANN-KOHLER: You're heard as a witness in this arbitration. As a witness, you are under the duty to tell us the truth, and I would like to ask you to confirm that you understand being under such duty by reading into the record the Witness Declaration that should be on the table in front of you, that is in front of you.

THE WITNESS: I'm aware that in my examination I must tell the truth. I'm also aware that any false testimony may

15:23 produce severe legal consequences for me.

PRESIDENT KAUFMANN-KOHLER: Thank you.

Now, I see you have some documents in front of you. Can you just tell us what it is.

THE WITNESS: Yes. I have some handwritten notes that I have made from some of the documents that I've read. I have my own Witness Statement, also statements from other witnesses of the Claimant, Memorial Replies.

PRESIDENT KAUFMANN-KOHLER: Fine.

So, what I would suggest is that you, of course, are entitled to look at your Witness Statement, and otherwise we will--you will tell us what document you are looking at, and probably you will be asked questions with respect to specific documents that will be shown to you.

THE WITNESS: Yes.

PRESIDENT KAUFMANN-KOHLER: With respect to the Tribunal, will we look at the hearing bundle, or how do you intend to proceed when you refer the witness to a document?

MR. DOURAIRE de BONDY: For the purpose of this examination, I intended to refer to the electronic version of the document, so it will appear for the witness up above the screen. It could be enlarged, and the Tribunal will be able to see the document on the screens.

PRESIDENT KAUFMANN-KOHLER: That is fine. You simply have to then make sure that we know for the transcript the

15:24 exhibit number.

ARBITRATOR CRAWFORD: Would you also give us the hearing bundle number when you do that since sometimes it's useful to annotate it.

MR. DOURAIRE de BONDY: Yes.

PRESIDENT KAUFMANN-KOHLER: Fine.

Anything else, Mr. Douaire de Bondy, you would like to raise?

MR. DOURAIRE de BONDY: I'm just wondering about Mr. Ingulli's mentioning him having some personal notes with him on the witness table, and I'm wondering if that should be part of the accouterments of the witness.

PRESIDENT KAUFMANN-KOHLER: That's what I meant when I was saying that Mr. Ingulli should refer to his Witness Statement. Of course, you are entitled to do this at any time, and otherwise to the documents that you will be specifically pointed to, but not to other notes or other documents that we don't know of.

So, then, Mr. Somers, you can start with your direct.

MR. SOMERS: Thank you.

THE WITNESS: May I ask a question? Would it be helpful if my notes were entered into the record?

PRESIDENT KAUFMANN-KOHLER: It would not.

THE WITNESS: Okay.

DIRECT EXAMINATION

02:00 BY MR. SOMERS:

Q. Thank you, Mr. Ingulli.

I would simply like to ask you to adopt and affirm the truth of the statements that you have filed in this proceeding, being the Confidential Statement of Evidence of Alfred Ingulli and the second Confidential Statement.

A. I'm the author, and I adopt them.

Q. Thank you, Mr. Ingulli.

MR. SOMERS: Madam Chair, just on the point of the manner in which my friend intends to cross-examine Mr. Ingulli, by using electronic documents, we just--I would like the assurance that the witness will be able to see the entire document and not merely whatever extract is chosen to be shown electronically to him. He's nodding in assent, and I appreciate the significance of that.

PRESIDENT KAUFMANN-KOHLER: And we will make sure that Mr. Ingulli has the time to review the document, if he wants to look at the full document.

MR. SOMERS: Thank you.

PRESIDENT KAUFMANN-KOHLER: Sure.

So, if that is all on your side, then we can proceed with the cross-examination.

MR. SOMERS: Yes, thank you.

CROSS-EXAMINATION

BY MR. DOURAIRE de BONDY:

15:26 Q. Hello, Mr. Ingulli. My name is Christoph Douaire de Bondy. I represent the Government of Canada, and I'm going to ask you a few questions.

Mr. Ingulli, in the first place, could you confirm that Chemtura has been selling lindane products in Canada since the 1970s?

A. Yes. I believe it was first registered in 1978.

Q. And this was the use of lindane as a canola seed treatment?

A. Yes, I believe that's the case.

Q. Now, you will agree that in the 1970s that Canada's Pest Control Act, in 1978 specifically Canada's Pest Control Products Act was in force?

A. I'm not knowledgeable of the Pest Control Act in the 1970s.

Q. In any event, there was Canadian pest control legislation in place?

A. Are you asking me if there was?

Q. Yes.

A. I assume there was, but I have no knowledge of that.

Q. So, you confirm that in the 1970s Chemtura couldn't just start selling a pesticide in Canada without some form of government approval?

A. I would expect that, Canada being a sophisticated developed country, that would be the case.

15:27 Q. So, you would first have to receive a registration for use from the Canadian Government?

A. Again, I'm making the assumption. I was not running the business at that time, but I was making the assumption that that would be the case.

Q. And the same is for lindane as for any other pesticide?

A. Yes. I would expect that lindane would be treated the same as other pesticides.

Q. And you would agree that Chemtura received no assurances in the 1970s that lindane would be registered indefinitely in some formulated product?

A. I have no knowledge of that.

Q. Do you expect that the Government of Canada at the time would have given you that kind of assurance?

A. It's not likely.

Q. In fact, pesticide--you would agree that pesticides registered in the first place where a government determines its use doesn't present unacceptable risk?

A. Yes.

Q. And that risk could be either to human health or to the environment?

A. Yes.

Q. And the registration is always on sufferance. That's to say, it's always subject to government's continuing view

15:28 that the use of a pesticide doesn't present unacceptable health or environmental risks?

A. Yes.

Q. And you would agree that over time science can advance?

A. Yes.

Q. The scientific understanding of a pesticide can evolve?

A. Yes.

Q. And if--as scientific understanding evolves, new safety standards can be put in place?

A. Yes.

Q. So, new information about the effects of a pesticide can come to light?

A. Yes.

Q. So, a pesticide registration is always at risk of such developments?

A. Yes.

Q. And this is true of all the pesticides Chemtura would have sold--sells and sold in Canada?

A. It would be true of all the pesticides that any company sells.

Q. Right.

And the same applies in the United States, in your home jurisdiction?

15:29 A. Yes.
Q. And you would agree that it's part of PMRA's legislative responsibility to re-evaluate registered pesticides?
A. If that's what the law of Canada requires, I would agree with that.
Q. So, if PMRA determines that a registered pesticide presents unacceptable risk, it has the legislative authority to suspend that use?
A. Yes, provided it's gone through a rigorous scientific review while using recognized scientific principles.
Q. In fact, if PMRA reaches a conclusion based on a scientific review that you present unacceptable risk, it actually has a legislative duty to withdraw the use--the support for that particular pesticide?
A. Yes.
Q. Now, Chemtura sells its pesticide for use on specific crops, and you would agree that the label of the product formulation confirms what crops the pesticide could be used on?
A. Yes.
Q. So, the pesticide must be sold for the crops that are identified on the Product Label.
A. Correct.
Q. And if it's not on the label, you don't have the right to sell the product for use on a particular crop.

15:30 A. Yes.
Q. And it's also PMRA's duty to ensure that products are used only for registered uses?
A. Yes.
Q. Now, Chemtura sells its agricultural pesticides for use by growers, doesn't it? Ultimately, I mean, agricultural pesticides.
A. We generally don't sell to growers. We generally sell to--in the case of seed treatment, to seed treating companies.
Q. Right. There might be intermediates?
A. Yes, there might be intermediaries.
Q. But the growers are the ultimate end-users of your pesticides?
A. Yes.
Q. And it's up to growers to decide whether or not they want to use your pesticide?
A. Yes.
Q. They can choose between different formulations?
A. Yes.
Q. And they could choose between different pesticides?
A. Yes.
Q. And that's really up to the growers?
A. Yes, influenced by professionals who advise growers, influenced by manufacturers, just those people are influenced by car--one car as to over another.

15:31 Q. So, you can't force growers to use a pesticide if they decide they don't want to use it?

A. No, that's correct.

Q. And there might be all sorts of reasons why growers wouldn't want to use a pesticide?

A. I imagine, yes.

Q. And the growers are ultimately your customers. I mean, they're ultimately through the seed treaters. If the pesticide--if the growers don't want a product, the seed treaters aren't going to buy it from you?

A. Yes, but with a qualification. If there are no alternatives to the product that a company is offering, which is--was the case with lindane, then the grower pretty much would have no choice but to use the product that was being offered by the manufacturer.

Q. When you say that there was no alternative to lindane, in fact, there was an alternative. You mean in 1998? Are you referring to that?

A. I'm talking preregistration of Helix.

Q. Oh, preregistration of Helix.

But, in fact, Gaucho 75ST and Gaucho 480 had already been registered for use at that time?

A. They were registered, but they were not being sold.

Q. Were they not being sold because Chemtura was not promoting them?

15:32 A. They were not true replacement products for lindane.
Q. Well, they were used to kill--the same pesticide with the same pests, weren't they?
A. Right, but there were issues around using the products.
Q. And those issues were the fact that they needed to be formulated with a fungicide?
A. That was--that was the primary issue, yes.
Q. But it was possible to formulate the insecticide with a fungicide and use them on canola products?
A. Not without registration from the PMRA.
Q. That's right.
But they were registered by PMRA in October and November 1999?
A. But you can't mix one formulation--for instance, an insecticide formulation--with a fungicide formulation and sell the mixture without the mixture being registered.
Q. But you're talking about an all-in-one formula. I'm talking about the fact that one could independently buy the insecticide and the fungicide and use them together. That's possible, isn't it?
A. Not likely, for the simple reason that the primary customer for the all stand-alone insecticide and the stand-alone fungicides were the seed treating companies, and the combination of those two products contain so much liquid

15:34 that the seed treating equipment that the seed treating companies had could not handle the volume of liquid from the combined products.

I say that in a general sense. There were a few exceptions, but generally speaking, the liquid load was for the two products you put together by the seed treating company overwhelm the equipment.

Q. But it's true that as of November 1998 Chemtura was contemplating selling the submitted registered pesticides?

A. You're referring to the Gaucho pesticides?

Q. Yes.

A. Those products--Chemtura anticipated a situation where the grower was going to be left with absolutely nothing to control flea beetle, which would be a devastating situation for the Canadian growers. So, as a stopgap measure, it rushed to bring forward a product that could be used to control flea beetles, never with the expectation that that was going to be the lindane replacement product, but offering the growers an opportunity for something to get them through until a true lindane replacement product was registered.

Q. Now, Chemtura is responsible for developing its own product, isn't it?

A. Yes, well--

Q. It's up to Chemtura to develop its own formulations?

A. Yes.

15:35 Q. It's up to Chemtura to work out effective products?
A. I'm sorry--
Q. It's up to Chemtura to work to develop effective products?
A. Yes.
Q. That's not up to the PMRA?
A. I would agree, yes.
Q. So, if Chemtura delays in developing a formulation, that's not PMRA's fault?
A. I would agree with that.
Q. And PMRA isn't responsible for marketing Chemtura's products?
A. Correct.
Q. And PMRA isn't responsible for maintaining Chemtura's market share?
A. Correct.
Q. All right. I will come back to some of the issues you've raised, but I would like to discuss the Special Review process for a moment.
Now, Chemtura, you would agree, is a sophisticated registrant?
A. Yes.
Q. As a sophisticated registrant, Chemtura would be expected to know and understand PMRA practices?
A. Yes, I would say that's correct.

15:36 Q. And Chemtura is generally familiar with PMRA re-evaluation policy?

A. Yes.

Q. Now, we have seen that the Special Review announcement was March 15, 1999. Chemtura's representative at TSG as well as Chemtura and CIEL, you agree they were invited to a meeting with PMRA in May of 1999 to discuss the Special Review?

A. I would have to see the documentation. I'm assuming you wouldn't be bringing it up if it wasn't correct, but I don't have specific knowledge of that meeting.

Q. All right. We could go to Exhibit CF-9, which is in the hearing bundle at 93.

ARBITRATOR CRAWFORD: Volume?

MR. DOURAIRE de BONDY: I'm sorry, Volume 93 is which volume of the hearing bundle?

(Off microphone: Volume 2.)

BY MR. DOURAIRE de BONDY:

Q. So, now we are at this meeting of 11th of May 1999, and Chemtura's own Rob Dupree was also present at this meeting, wasn't he?

A. Yes, I see that.

Q. Yeah.

You, yourself, weren't present at this meeting?

A. I was not.

Q. And Mr. Edwin Johnson was your TSG representative?

15:38 A. Yes.
Q. Mr. Johnson has been a consultant--
A. Well, he was a CIEL representative at that time.
Q. He's been a consultant for Chemtura on lindane for a number of years?
A. Yes.
Q. And he's one of Chemtura's witnesses at this hearing?
A. Correct.
Q. And at that May 1999 meeting, which lasted over two days, Chemtura's representatives could ask all the questions they liked about the Special Review process.
A. I wasn't there to see--experience how the meeting was conducted, but I would assume that it was an open meeting.
Q. In fact, Mr. Johnson reported back on that meeting, didn't he, and this is part of that Report? Let's look at what Mr. Johnson had to say on the next page. It's up at the top of this page, "In summary, PMRA staff was very open in the discussion and interested in our presentations on data and the canola tolerance. We will be able to maintain an open relationship and dialogue with them as the Special Review proceeds."
So, you have no reason to doubt that this is the impression that Ms. Johnson had from the meeting?
A. I had no reason to doubt that that was the impression at the time, but as events developed, that isn't what happened

15:39 in terms of the open relationship and dialogue with the PMRA.

Q. In fact, the Board of Review found that the Claimant failed to take any advantage of any opportunities to pursue discussions with PMRA, didn't it?

A. I would turn that around to say that the Claimant, on many occasions, offered data to the PRMA and was rebuffed.

Q. Well, you know, that--let's consider that data issue for a moment.

You agree that EPA started its own review of lindane the year before Canada Special Review was launched, so it began an RED, a Re-registration Eligibility Decision review in 1998?

A. I don't remember the exact year, but it was approximately then, yes.

Q. And EPA, in connection with that re-registration eligibility review, had assembled the database of all available data?

A. I assume that's correct.

Q. And you know that the PMRA had in connection with its own Special Review full access to this database?

A. Yes.

Q. And you're aware that PMRA did rely on the EPA database?

A. Perhaps it relied on the EPA database, but it didn't rely on the EPA's findings and interpretation of the data.

Q. But that's a different thing. They did rely on the

15:40 EPA data. You have no reason to dispute that?
A. I have actually no reason to agree with it, either. I don't know what interaction took place between the EPA and the PMRA relative to the database.
Q. And you're aware that having relied on the EPA database, the PMRA didn't have to engage in a full Data Call-In in its Special Review?
A. I'm not aware of that.
Q. Well, the PMRA--so you're not aware of the fact that PMRA had the EPA database and, therefore, a full Data Call-In became redundant in its own Special Review?
A. Well, I think that statement makes the assumption the EPA had a full database. If the database was not full and complete, then either Agency could have initiated a Data Call-In.
Q. But the EPA had, in fact, initiated the Data Call-In. Are you aware of the fact that EPA had, in fact, measured a Data Call-In and had a full and complete database?
A. My impression was that they judged the database to be complete and that the PMRA judged the database to be not complete.
Q. The PMRA judged the database to be not complete?
A. That's the testimony of Lynn Goldman, in her testimony.
Q. I think we will talk to Lynn Goldman about that when

15:42 she's here.

Now, you know that PMRA has a policy relying on existing data in its reevaluations?

A. I'm not aware of that.

Q. And so you're not aware that this reflected PMRA's general policy to promote the efficiency of its re-evaluations?

A. Can I ask you a question? Is that proper?

PRESIDENT KAUFMANN-KOHLER: If you need an explanation or specification of the question, of course you can.

THE WITNESS: Are you saying that if the PMRA, in its review of data, discovers that there is data gap that it doesn't make a Data Call-In? Just works whatever it has? I mean, if that's the case, it sounds like not a very good system.

BY MR. DOURAIRE de BONDY:

Q. I think what the PMRA finds is--I think that we will return to this issue with Cheryl Chaffey when she's here, and she will discuss the data issue.

But, in any event, the policy is generally to promote--the PMRA has a policy of relying on existing databases to promote the efficiency of its re-evaluations. I'm just wondering if you're aware this policy wasn't just applied in the case of lindane.

A. I wasn't aware of the policy, so I can't really comment, one way or the other.

15:43 Q. All right. Just a few questions about the Special Review.

Are you--I just wanted to confirm, you weren't one of the scientists involved in the Special Review of lindane?

A. That's correct.

Q. Your comments on the Special Review aren't based on any direct knowledge of that scientific process?

A. I mean, I have some general knowledge of the process, but I was not a scientist involved in inputting data or interacting with the PMRA. In fact, we had very little, if any, interaction.

Q. I'm talking about the PMRA itself.

So, you didn't conduct the toxicology review?

A. No, I did not.

Q. Or the exposure assessment?

A. No.

Q. Or the environmental assessment?

A. No.

Q. Or the carcinogenicity assessment?

A. No.

Q. You didn't conduct the value assessment?

A. No.

Q. You didn't assess the Reports?

A. No.

Q. You didn't engage in discussions with the EPA?

15:44 A. No.

Q. Now, you know that Ms. Chaffey was one of the senior scientists involved in the Special Review, and she's provided testimony in this matter on the Special Review process. Are you aware Ms. Chaffey has confirmed that PMRA spent hundreds of hours in review of lindane?

A. I have heard that. That seems like a trivial amount of time, 40 hours in a week. That wouldn't be very many weeks on the submission as important as this.

Q. So, you wouldn't think--it's a--

A. Five man weeks on reviewing data of this magnitude seems like not a very substantial effort, to me.

Q. Yeah, she mentioned about the toxicology review in particular, but similar amounts of time were spent in relation to every aspect of the Special Review.

A. Um-hmm.

Q. And you're aware that Ms. Chaffey has confirmed that the Special Review proceeded on several fronts in parallel?

A. I have vague recollection of reading that in her testimony.

Q. Right.

And these included toxicology, exposure assessment, carcinogenicity, environmental behavior and value?

A. I don't have a specific recollection of that group of studies.

15:46 Q. And this reflected the PMRA's announcement in March of 1999 that the scope of the Special Review was potentially broad?

A. Special Review announcement did say it could be broad. It didn't say anything about--excuse me, if I may.

Q. Sure.

A. That there was no mention of worker exposure whatsoever, although I suppose you could say worker exposure would be included under the broad category.

Q. In fact, PMRA confirmed to Chemtura and to TSG in May 1999 that it would be looking into a broad range of concerns into health and environmental?

A. I don't--you will have to produce an exhibit, if you would like me to confirm that.

Q. It's actually the exhibit we were just looking at, if we could go back to it. Number 2, R. Aucoin. And if you look at the second paragraph down, their schedule is to focus on the chemistry aspects now and health and environmental issues in the fall.

A. Um-hmm.

PRESIDENT KAUFMANN-KOHLER: Again we are at CF-9; right?

MR. DOURAIRE de BONDY: Yes.

PRESIDENT KAUFMANN-KOHLER: Which was hearing bundle--

MR. DOURAIRE de BONDY: 93.

15:47 PRESIDENT KAUFMANN-KOHLER: Ninety-three, Volume 2.

BY MR. DOURAIRE de BONDY:

Q. Now, it says here the schedule is to focus on the chemistry aspects now and health and environmental issues in the fall.

You would agree that a health issue with regard to the use of a pesticide would include the health effects of being exposed to the pesticides during seed treatment?

A. Yes.

Q. And I'm not sure if you recall, but the Special Review announcement also notes that lindane is predominantly used as a soil or seed treatment to protect crops. So, based on that, it would be expected--reasonable to expect that a broad-ranging Special Review would consider the predominant use of the product?

A. Yes.

Q. The evaluation of the exposure to the pesticide is a standard part of re-evaluation, isn't it?

A. Yes.

Q. And in the case of lindane, one of the most likely exposure routes is when workers are actually applying the seed treatment to canola seed?

A. Yes, but exposure can be controlled in many ways, and it is controlled in many ways.

Q. Now, that's a different question. I'm asking whether

15:48 they were considering exposure?

A. Yes, I'm sure they were considering exposure, but unbeknownst to us that was the main focus of the Special Review.

Q. I think Cheryl Chaffey will attest to the fact that it was not, in fact, the main focus, but it was one of many focuses, and that the PMRA simply achieved that result first. But we will get to that.

You're aware that at the time the PMRA reached its negative occupational exposure result, it had other aspects of the review ongoing?

A. I'm not aware of that.

Q. And these aspects included a review of carcinogenicity, of environmental fate, of product value?

A. I'm not aware of that.

Q. Now, you are aware that once the PMRA had reached its negative result on occupational exposure, it suspended other ongoing aspects of the Special Review?

A. Yes.

Q. And this was because, for the PMRA, unacceptable risk to workers was reason enough to suspend the use of the product?

A. Yes.

Q. So, if PMRA concludes that the product poses unacceptable health risks to workers, it didn't also need to know that the product causes cancer or is a possible

carcinogen?

A. Of course, we contested the worker exposure findings of the PMRA, and that's why we wanted a full evaluation.

Q. From the PMRA's perspective, if it felt based upon its science it had unacceptable health risks to workers, it could--it didn't need to pursue the other aspects of the review from a purely academic point of view?

A. Yes. From our point of view, the flawed science of the PMRA would have justified in its own mind the cessation of the other investigations.

Q. But if the pesticide is found unsafe on one major front, that was enough?

A. Enough for what?

Q. Enough to determine that the use of the product could no longer be pursued. This is--the registration of the product had to be suspended.

A. Yes.

Q. Now, I'm not sure you would be aware of these things, but you're aware that PMRA reached the result of its occupational exposure by combining the results on toxicology, on the one hand, with the results on exposure?

A. It's my understanding from what I know of the Review Board presentations that the PMRA did what you just said, "combine," but applied safe margins of safety factors that were way out of line with what the EPA was applying, and also what

15:52 the Review Board felt was reasonable.

Q. But the PMRA applied its own safety standards?

A. Yes.

Q. Are you aware that actually PMRA applies a factor 10 to the safety factors for pesticides in general in its re-evaluations?

A. I think there is one factor of 10 for interspecies.

Q. Yes.

A. But that's not the factor of 10 that's of concern to our company. It's the extra factor of 10 that I think brought the total safety factor up to a thousand and is the item of concern to our company.

Q. And you're aware that PMRA actually applies that same factor 10 to a variety of pesticides in its re-evaluation of these pesticides?

A. Which factors of 10?

Q. The additional factor of 10.

A. The interspecies factor?

Q. The additional factor of 10.

A. To get to a thousand?

Q. Yes.

A. I don't think anything would pass registration if everything had a safety factor of a thousand applied to it.

Q. But you're aware that this is not the only case in which lindane has been--which PMRA has applied a factor of

15:53 1,000?

A. No, I'm aware of that.

Q. Now, Chemtura's lindane products were existing registrations in 1999, weren't they?

A. Yes.

Q. They were already on the marketplace in that year?

A. Yes.

Q. And they were already in use?

A. Yes.

Q. And that meant that people were being exposed to these products in the sense of, for example, workers being exposed to lindane in seed treatment?

A. The seed treating practice in Canada at that time more than adequately protected workers from exposure to lindane during the application of seed treatments to seed in the modern Canadian seed treatment factories.

Q. That's Chemtura's view of adequate protection?

A. That's our view, and I think that view is upheld by the worker exposure study done that was done by Sygenta on Helix.

Q. In fact, worker exposure has been the reason for the withdrawal of lindane in many countries, hasn't it? It has been the reason for withdrawal of lindane for seed treatment in U.K., for example, since 1999?

A. The treatment practices in the U.K. were totally

15:54 different than the treatment practices in Canada. U.K. did not use closed systems, whereas Canada uses closed systems that minimize or eliminate worker exposure. So, we are not comparing apples to apples at all.

And, in addition to that, the U.K., after banning the seed treatment uses of lindane, went on to allow continued use of far more risky uses of lindane, including such uses as orchard sprays and home use, where the exposure is many times greater than one would have, even in the U.K. seed treatment situation, and certainly much more than in the Canadian seed treatment situation.

Q. When you say "continued," U.K. is also a member of the European Union? You would agree that U.K. is part of the European Union?

A. I thought the U.K. was not part of the European Union.

Q. I think some people in the U.K. think that.

In any event, you're aware that the E.U., as of 2000, also announced a ban on withdrawal of lindane use?

A. Yes.

Q. And one of the concerns that the E.U. cited in its ban was occupational exposure?

A. I'm not aware of that.

Q. And those concerns in the U.K. and in the E.U. were despite having taking into account potential mitigation measures?

15:56 A. I'm not aware of that.
Q. But you would expect that in reviewing a product major--that these countries would have taken into account mitigation measures?
A. I don't know. I mean, certainly you can--
Q. Are you suggesting that the U.K. wouldn't have taken into account mitigation measures?
A. Well, certainly Chemtura was not afforded the opportunity to present the mitigation measures in its rebuttal to the Special Review that the PMRA did, so I have no knowledge of whether they took that into consideration or not.
Q. Actually, in October 2001, when the PMRA released its draft results on occupational exposure and consulted with the Claimant for the next several weeks, there was no reference at that point to mitigation measures, was there?
A. I don't know.
Q. Well, I'm asking you did Chemtura--
A. I'm sorry, please repeat--
Q. That Chemtura proposed mitigation measures in that period--
A. Which period?
Q. End of October, November, early December 2001.
Did Chemtura say, "We are going to change the formulation, for example, to remove a powder formulation"?
A. Chemtura, at the time of the Review Board, proposed

15:57 removing the powdered formulations and adding personal protection equipment.

Q. Right.

And my question is: Did you propose these modifications to the PMRA in October, November, or December 2001, when the--

A. We really had no reason to because we had no idea that the main focus of the PRMA's Special Review was worker exposure and that it had serious issues with worker exposure.

Q. No, wait a minute.

Sorry, go ahead.

A. I mean, you can't correct the problem unless you know you have a problem.

Q. But by that time you knew they had reached a conclusion based on occupational exposure risk--

(Simultaneous conversation.)

Q. You certainly knew by November 2001 that PMRA had reached a negative conclusion in its Special Review based on occupational--

A. Yes. I'm sorry, I didn't catch the right date.

Q. So, you knew that this was the concern, at least one of the concerns, of the PMRA, and you didn't propose any mitigation measures at that point?

A. I know that we presented a position paper on the results of the Special Review in the short time that we had to

15:58 do that. I believe that mitigation measures were proposed, but I'm not positive of that. I would suggest you ask that question of one of the technical people who are witnesses.

Q. In fact, I'm just wondering if you know that that Report that Chemtura proposed didn't include--sounds like you don't know that that Report didn't include any reference to mitigation measures and, indeed, simply took the same data that PMRA relied on and applied a lower safety standard.

A. I'm not aware of that.

Q. I just want to go back for a moment to this issue of the review of a product that's already on the market, and I was noting that when PMRA conducts the re-evaluation of a product that's on the market that's already registered, the product remains in use; correct? And subject to any--as long as PMRA hasn't reached a decision on its re-evaluation, the product remains in use; you would agree?

A. To the best of my knowledge, yes.

Q. So, subject to any other events, so long as PMRA hadn't reached a decision on lindane, for example, lindane remained in use?

A. Yes.

Q. And the review had been undertaken because, among other things, they said in May of 1999 there were health concerns associated with lindane?

A. The Special Review, I thought, focused more on

16:00 environmental concerns.

Q. In fact, it said that the issues were broad-ranging and that there was uncertainty.

(Witness shrugs.)

Q. Now, in any event, by the late 1990s, lindane was known to be toxic to humans?

A. There was scientific debate over that issue.

Q. Scientific debate. You don't think it caused nervous disorders, for example?

A. I'm aware of our Expert Witnesses at the Board of Review refuting many, if not all, of the toxic effect claims of lindane that were being reported and reported in that literature.

Q. So, by--you're not aware the fact that WHO, as of 1975, had already identified a variety of toxic effects of lindane?

A. I am not.

Q. And since 1975, science has certainly advanced?

A. I would agree with that.

Q. So, when you have a product that was known to be toxic and is on the market, there might be an incentive to complete a review within a re-evaluation within a reasonable time.

A. I think that's a leading question. You're starting out with the premise that the product is toxic. I think the product, like all products, are subject to re-review by the

16:01 PRMA and EPA as part of the re-registration process. I would acknowledge that.

Q. And when the PMRA is conducting a special review, it's conducting that Special Review because there are identified health or environmental concerns?

A. Not necessarily.

Well, I can only comment on the USA process. The USA process requires the EPA to re-review or re-register products, I think it's every 10 years, or perhaps it's 15, whether or not there are any concerns.

Q. Right.

Well, in the case of a special review, that's a cyclical review, whereas in the case of a special review in Canada, a special review is undertaken where there are demonstrated health or there are suspected health or environmental concerns, and that's--you're aware that was the case of the Special Review of lindane?

A. I suspect that the PMRA may have had concerns about lindane.

Q. Now, I want to briefly compare the situation with that of a product that's not on the market, a new product. So, in the case of review of a new product, you would agree there are no concerns that's not on the market. There is no concern about exposure during the evaluation of that product?

A. Yes.

16:03 Q. So, the PMRA can take additional time to review a product that's being proposed for registration to determine whether it's safe?

A. I don't think that that's what determines the time line for review. I think, and depending on the complexity of the review, the category of review, that's what determines the time line.

Q. But you would agree that there would be no current concern about, for example, exposure if a product was not yet introduced on to the market?

A. Oh, I would agree with that, yes.

Q. So, it would be reasonable to distinguish between the consideration for registration of a new product and a product that was under Special Review, in terms of the timing of the review process?

A. I don't see a connection between the two. In fact, I would expect that a new product would have a longer time line because it's a new product, and there is certainly more data to review on a new product than there is on an existing product.

Q. The point is simply that there is a distinction to be made between the re-evaluation of an old product, which is in continued use and which could be causing immediate health and environmental effects, and a new product that's not yet on the market that the review process in the latter case does not have concerns about current exposure.

16:04 A. Certainly, a new product that's not on the market would not create any concern for exposure, but just because a product is under review doesn't mean there is an imminent concern for health. In fact, in the case of lindane, I think it remained on the market for three or four years after the Special Review was issued, so obviously there was no limiting concern about health or the PMRA would have stopped, immediately stopped, the use of the product.

Q. You're aware that the decisions about phase-out are based upon a notion of incremental risk?

A. No, I'm not.

Q. And if you are removing a product from the market, you know it's going to be removed from the market. The overall risk is lowered in the sense that it's not--you know it's not going to be registered indefinitely. You know it's going to be registered for a specific amount of time.

A. Yes, that makes sense, but your prior question talked about imminent danger, and that's inconsistent with imminent danger, a long phase-out period.

Q. But the issue is that the incremental risk will be reduced by the fact that there is a specific cut-off date for use of the product.

A. I'm not familiar with what "incremental risk" means. Could you elaborate on that.

Q. The incremental risk is the total amount of risk that

16:06 a product represents. If a product has been used for 50 years, there is a certain amount. If we know it's going to be in use for another 10 years, that's adding to the risk. If we know it's going to be registered for only an additional six months after that 50 years, that six months is only a small increment in relation to the total risk, and, therefore, pesticide regulators allow for phase-out periods.

You would agree with the fact that the phase-outs are common in pesticide regulation?

A. I think perhaps they're even required, unless there is imminent risk.

Q. Now, I would just like to go to the issue of PMRA and EPA's separate reviews. We know PMRA is Canada's national pesticides regulator, and U.S. EPA is the U.S. national pesticides regulator. You'd agree that each has a specific national jurisdiction?

A. Yes.

Q. And within that jurisdiction, each agency has a responsibility to review pesticide safety?

A. Yes.

Q. And in order to conduct such reviews, each agency has to develop review policies?

A. Yes.

Q. And those review policies will include acceptable standards of risk?

16:07 A. Yes.
Q. So, each agency will develop a standard for acceptable use of a pesticide?
A. Yes.
Q. And each agency will apply that standard within its own jurisdiction.
A. Yes.
Q. Now, you agree that these standards may not be identical from one jurisdiction to the other.
A. That's possible.
Q. And one jurisdiction might adopt a more conservative approach to pesticide regulation--registration?
A. Yes.
Q. These differences reflect differences of views on the risks?
A. Yes.
Q. So, we could start from a particular dataset and apply to that dataset a particular threshold of risk; right? Let's say based on the threshold the Agency in question determines the risks of use are acceptable, you agree another agency could take that same database and apply to it its own standards of risk?
A. Within certain boundaries, yes, I would agree with that. I think that there certainly can be honest difference of opinions between scientists, but I wouldn't characterize honest

16:08 difference of opinions when we are talking about factors of hundreds and perhaps even thousands, which was the case in the differences between the evaluations of the EPA and the PMRA on lindane as evidenced by Lynn Goldman's iteration, I think, of four different areas of disagreement between the USA and Canada on the 10X safety factor. There was a 333 percent difference of opinion between scientists, which to me is enormous. I don't remember the other three, but I remember one of them was a thousand percent difference in opinion between scientists, and to me that's not attributable to just routine differences in policy between countries.

Q. You, yourself, are not a scientist involved in re-evaluation?

A. I'm not.

Q. You don't develop re-evaluation standards?

A. I do not.

Q. You don't consult with a variety of stakeholders to determine what safety standards is appropriate?

A. I do not, but I can read witness reports.

Q. Now, with regard to EPA, you're aware that EPA in 2002, in fact, reached a negative finding on occupational risk for canola?

A. I'm aware that they reviewed a study, worker exposure study that was submitted by the company. They went on to resource other sources of information on worker exposure and

16:10 concluded that worker exposure was not an issue to the EPA on lindane in 2002, and that was communicated by me to Claire Franklin and Wendy Sexsmith in October of 2000 when I met with them.

Q. You're talking about something communicated to Wendy Sexsmith and Claire Franklin in October that the EPA determined in 2002?

A. The EPA had under review lindane and had concluded at the time of my meeting in October of 2000 that worker exposure was not an issue.

Q. The EPA had concluded as of October 2000--

A. That's my understanding, yes.

Q. So, you're not aware of the fact that, in the EPA's--the Lindane Risk Assessment issued in June 2002, the EPA actually made a specific negative finding about lindane risk, occupational exposure risk for lindane use on canola?

A. I haven't read the RED, and I would appreciate it if you would address that question to our technical experts, John Kibbee and Paul Thomson.

Q. Now, just to go back to this point of the October 2000 meeting, you know--you say met with PMRA in October 2000. In fact, it was a meeting with PMRA's Executive Director, Dr. Franklin?

A. That's correct.

Q. Is it fair to say you don't meet with Dr. Franklin

every day?

A. Yes.

Q. So, it's fair to say if PMRA agreed to arrange a meeting between you and its Executive Director, it was taking Chemtura's concerns seriously?

A. Yes.

Q. So, it's fair to say if you and Dr. Franklin were meeting, that was a high-level meeting?

A. That was a high-level meeting, yes.

Q. And if PMRA raised an issue at the meeting, it was signaling concern from the highest level of the organization?

A. I would say that that's the case.

And I can anticipate where you're going, but the issue of worker exposure was mentioned by Dr. Franklin, and I indicated to Dr. Franklin that it was my understanding that the EPA had reviewed worker exposure and found it not to be an issue. And since we were told at that meeting that the PMRA was going to rely on EPA reviews, I made the assumption that the PMRA would confer with EPA or confirm what I had told them, and agree with the EPA that there was no problem, since that was my understanding of the EPA's position. And when we didn't hear back from the PMRA on worker exposure, we assumed that that's what happened.

Q. In fact, two days after that meeting, you submitted to PMRA a worker exposure study, which had Rob Dupree sent it?

16:13 A. Rob Dupree did.

Q. Right.

And that worker exposure study was Chemtura's internal worker exposure study?

A. That's right.

Q. And that's--Rob Dupree in his letter said--and we could go to this. This is Exhibit CF-10, which is in the hearing bundle at Document 154, and it's the paragraph at the bottom of the page.

If the PRMA has not already done so, I would encourage them to review this study to gain a better understanding of the exposure profile that workers can expect when treating canola seed with a seed treatment containing lindane."

So, it's fair to say Mr. Dupree was suggesting that by reviewing the study, PMRA could gain a better understanding of expected worker exposure during lindane seed treatment?

A. This study had been submitted for the first time to the PMRA in 1992 and was resubmitted, as you correctly point out, shortly after the meeting. It was clear to me that Rob Dupree did not realize that the conditions under which canola is treated in the year 2000, in modern seed treating plants, was quite different than the conditions that were used in 1992. And that study should not have been submitted to the PMRA for it to rely on.

However, that same study was reviewed by the EPA, and

16:14 that study, along supplemental information that we did not submit but the EPA evidently found on their own, led the EPA to conclude that worker exposure was not a problem.

Q. You're referring to EPA conclusions prior to October 2000?

A. As of 2000, as of October 2000. That was my understanding that the EPA was indicating to Chemtura that worker exposure was not a problem. And again, I would much prefer these questions to be addressed to the people who have the most knowledge about them, and that would be Paul Thomson and John Kibbee.

Q. Given the fact that you have suggested PMRA Special Review was improper in your Witness Statements, I think it still remains a question that I can properly put to you.

So, you're not aware of the fact that, as of April 2001, the EPA was actually raising new occupational exposure concerns regarding lindane in its own review?

A. I'm not.

Q. And so you weren't involved in any of those subsequent discussions with the EPA?

A. I was not.

Q. Now, I just wanted to point out, you appeared before the Lindane Board of Review, didn't you?

A. Yes.

Q. And you addressed this October 4th, 2000, meeting

16:16 before the Board of Review?

A. Yes.

Q. And you will confirm that Dr. Franklin wasn't called before the Board of Review, was she?

A. I don't remember her being there.

Q. She wasn't before the Board of Review?

A. I said I don't recall her being there.

Q. So, the Board only heard your side of the story about this meeting, didn't they?

A. I don't even recall discussing that meeting at the Board of Review, but I may have. It's possible that I did.

Q. You're aware that Dr. Franklin is going to testify in this hearing?

A. Yes, I am.

Q. And she will be able to tell the Tribunal her side of the story about what was said about occupational exposure?

A. I'm sure she will. I would be very interested in hearing it, too.

Q. I would just like to move on to the Voluntary Withdrawal Agreement issues.

You're aware, or we know that the issue on the use of lindane on Canadian canola arose in September '97 with the Gustafson letter and the EPA's January 8, 1998, response.

You're aware that, in January 1998, when Canadian canola farmers heard of this, they took up the issue with

16:18 Gustafson?

A. Yes, I believe there was communication between the associations and Gustafson.

Q. As of January 1998, they were expressing concerns about the implications of Gustafson's letter for their access to U.S. markets?

A. Yes, the trade implications.

Q. They were concerned that they may not be able to import Canadian canola that had lindane residues in it?

A. Actually, the communication between Gustafson and EPA dealt with lindane-treated seed being exported from Canada into the United States. It did not deal with canola oil and canola meal. And the EPA's response to the Gustafson letter merely stated USA law that unregistered pesticides cannot be imported into the United States, and the EPA response to Gustafson did not even mention lindane.

And it's my impression that the Canola Council and the Canola Growers Association blew this up into something much beyond what the EPA intended. In fact, there aren't residues of lindane in canola oil, and there was no real reason or need to be concerned about the EPA or the FDA who had been presumably testing canola oil that had been shipped for 20 years or more--at that point, it was 20 years, I guess, into the United States and not found any residues of lindane in canola oil. So, this thing got blown, in my view, completely

16:20 out of proportion to what it originally was, and that was limited to the improper importation of lindane-treated seed meant for planting into the United States.

Q. But in your understanding, the growers took this very seriously. The growers were concerned about potential border action to stop the imports of their canola--because of the lindane residues?

A. They may have, but in my view without basis.

And when we talk about the growers, we really should be talking about the associations that represent them. I doubt that 65,000 canola growers in Canada were concerned about border action. This was something that was at the association level, in my view.

Q. You mentioned that the EPA's response was not specific to lindane. Would you agree that Gustafson, in its September 1997 letter, was referring specifically to lindane as an illegal pesticide on Canadian canola oil?

A. I believe that's the case.

Q. So, the EPA was responding to a letter about lindane?

A. The EPA was responding in general about the illegality of importing unregistered pesticides into the United States.

Q. Right.

Could we look at that letter. Actually, this is the letter of January 12, 1998. It's Exhibit WS-2. It's number 23 in the hearing bundle.

16:21 So, the U.S. EPA is responding to Mr.--this letter by Gustafson's subsidiary, or Chemtura's subsidiary Gustafson.

A. Yes.

Q. And it's saying EPA, in second paragraph, EPA's Office of General Counsel has reviewed your letter and has concluded, based on the limited information you have provided, that importation of canola seed such as you described would not be permissible under the Federal Insecticide, Fungicide and Rodenticide Act. The seed in question has been treated with pesticides that are not registered for use.

So, the EPA is talking about the application of U.S. pesticides legislation.

A. Yes.

Q. And under that legislation, a seed that's treated with an unregistered pesticide cannot be used in the United States.

A. That's correct.

Q. Now, you're saying the focus was on seed. Could we look at the paragraph at the bottom of that letter.

A. No, the focus is on the unregistered pesticide. If I've left you with that impression, I apologize.

Q. Okay.

The last paragraph in the letter, "Moreover, even assuming the seed was treated by a registered pesticide and the treated article exemption could apply, a pesticide tolerance (maximum residue limit) or exemption from a tolerance could be

16:23 necessary to avoid adulteration of food produced from such treated seed. EPA requires tolerances to be established on the amount of pesticide residues that can lawfully remain in or on each treated food commodity. Canola seed treated with a registered pesticide cannot be legally imported or otherwise distributed in the U.S. unless a tolerance or exemption from a tolerance has been established to cover residues from the pesticides that could be remain from the grown from the seed.

So, there they're talking about a different issue, aren't they? They're talking about the issue of residue on food or feed.

A. Well, I think we have to distinguish between seed being planted--seed coming into the United States with an unregistered pesticide on it, that seed being planted in the United States, and food being--and canola seed, which eventually winds up in canola oil, being crushed in the United States. I'm not sure the same standard applies if the seed is treated in Canada with a legally registered pesticide and then ultimately converted from that lindane-treated seed into lindane's crop into canola oil that the same standard applies.

Q. But here the EPA is not talking about imports. It's talking about residues on food grown from treated seed.

A. Except there were no residues.

Q. In your view there were no residues, but if there were residues, there would be a problem?

16:24 A. If there were residues, there would be a problem, but there were no residues. And the FDA had been presumably inspecting importation of canola oil for 20 years and hadn't once found a residue of lindane in canola oil.

Q. But under the U.S. Federal Food, Drug and Cosmetic Act, without a residue tolerance, without an MRL, any amount of the pesticide in that food or feed product would be technically illegal; correct?

A. I think we are talking by each other. I agree with what you just said, except there were no residues.

Q. Right.

But if there were residues--

A. If there were residues, it would be illegal.

Q. Now, just to confirm--

ARBITRATOR CRAWFORD: I don't like to interrupt your cross, but I'm slightly puzzled. I can't find in the EPA letter of 12 January 1998 any discussion about residues in product as distinct from seed.

MR. DOURAIRE de BONDY: If you look at the paragraph that's highlighted, canola seed treated with registered pesticides cannot be legally--unless a tolerance or exemption from a tolerance has been established to cover residues of the pesticides that could remain in the canola grown from the seed.

So, that issue is the residue on the food or feed product. What happens is that a seed is treated with the

pesticide. The plant grows. Whatever food product is extracted from that plant, it's transformed, but there could still be amounts of pesticide residue in that food or feed.

And there isn't--what the EPA is referencing here is the requirement under the Federal Food, Drug and Cosmetic Act for what's called an MRL, or maximum residue limit. Canada has a policy or a standard of I think it's 0.1 parts per million of lindane--of pesticide residue being acceptable, whereas in the United States, under that legislation, if there isn't a residue level in place, then it's in effect a zero tolerance regime.

Now, this is what this second paragraph in the letter is referring to. And our Expert, Dr. Goldman, actually talks about this in both of her Reports.

THE WITNESS: Could I address the Tribunal with a comment?

PRESIDENT KAUFMANN-KOHLER: Yes, of course.

THE WITNESS: What we are talking about, at least in my view, is this hypothetical. We are talking about a single canola seed being planted--canola seed treated with lindane being planted, growing a canola plant which has tens of thousands of seeds on it and expecting to find in those seeds residue that is going to wind up in canola oil. Theoretically, it's possible, but very unlikely.

BY MR. DOURAIRE de BONDY:

Q. Could I please turn to Exhibit WS-29, which is an

16:28 update on the Voluntary Withdrawal Agreement from June 24th, 1999.

If we turn to the second page of this--

MR. SOMERS: I'm sorry, Mr. Douaire de Bondy, could we have hearing bundle.

ARBITRATOR CRAWFORD: Volume 3, Tab 99.

BY MR. DOURAIRE de BONDY:

Q. So, it's simply if we go to the next page, and the next page again, the Al Gwilliam comment, Al Gwilliam providing a lindane update. Now, if we look there, we see the second point, "no detectable lindane in refined oil, some residue found in first crush, some residue in canola meal."

So, Mr. Ingulli, you may not have been aware of this, but, in fact, as of the summer of 1999, lindane residue had, in fact, been found in canola meal and first crush canola oil, which would be the unrefined canola oil.

A. But not in the refined canola oil.

Q. But there were exports of canola oil unrefined and exports of canola meal to the United States; correct?

A. There were, but unrefined is not a food product.

Q. And so the--so, lindane residues were detectable in these forms of canola oil?

A. If Al Gwilliam is correct, I would have to agree with that. I had been told that there were no detectable residues in lindane--in canola food products coming into the United

States from Canada.

Q. Now, I want to go back to what the canola farmers were doing. You are aware that CCC began to hold industry meetings in the spring of 1998 about lindane?

A. Spring of '98, probably.

Q. So, the meetings were to discuss the canola industry's reliance on lindane?

A. I don't know.

Q. You don't know that they met to discuss the threat Gustafson's tipoff posed to--

A. I suspect--yes, I suspect they did, yes.

Q. And the potential for enforcement action under U.S. pesticides legislation?

A. Again, my opinion is the enforcement action would have been against the lindane-treated seed as opposed to food products coming in from Canada.

Q. But you know that that was a canola grower concern?

A. It was a concern, yeah.

Q. And you're aware that Canola Council of Canada began seeking industry approval for a voluntary phase-out of lindane use on Canadian canola?

A. There was--there was that effort made. My understanding that the PMRA and the Canola Council devised a proposed withdrawal plan, and that plan was presented to Registrants in November--in November of 1998.

16:32 Q. Well, actually, you're aware that it was the Canola Council that came to meet the Chemtura Canada in September of 1998, not the PMRA?

A. I--I--I don't know.

Q. Now, I just wanted to talk a bit about the CCC's concerns about lindane. You heard us talk this morning about mounting restrictions on lindane use as of the late 1990s. Canadian canola farmers were aware of these mounting concerns, weren't they?

A. I know Canola Council was concerned about it. I don't know what the 65,000 grower level that there was a great deal of concern.

Q. Would you expect a large agricultural industry association to be concerned about the status of the pesticides its growers used?

A. I would, although I think there is quite an inconsistency that the growers and the associations that represented them would have this great concern, and yet fully subscribed to using the product for three, four more years.

Q. And that was use of the product during the voluntary phase-out?

A. Yes.

Q. So, you don't know what they would have done if the Voluntary Agreement hadn't been put in place?

A. I don't know what they would have done. I think it

16:33 was mentioned by Mr. Somers that perhaps they would have spoken with their pocketbooks and stopped using lindane, although I think that's highly improbable.

Q. So, Mr. Somers is giving evidence in this matter?

A. I'm just quoting his Opening Statement.

Q. Presumably that was supposed to be based on some form of evidence; I'm not sure about that.

A. I will listen to the Opening Statement again.

Q. Canola farmers were aware that the existing lindane registrations were at risk in the scientific reviews?

A. Well, they were aware that there was a scientific review going on. I don't know that they were in a position to predict the outcome.

Q. You're not aware--are you aware of the fact that the World Wildlife Fund was planning on issuing a report on canola in the fall of 1998 that would single out the canola industry's reliance on lindane?

A. I had heard that World Wildlife Fund was involved. That's their business.

Q. And you're aware that canola is primarily marketed as a healthy product?

A. Yes.

Q. So, public perception that canola contained a toxic chemical could affect that image?

A. It could affect that image, but I don't see that has

any bearing on the Special Review process.

Q. Well, I'm not talking about that. I'm talking about the motivations of the Canadian canola farmers.

A. Um-hmm.

Q. And you would agree that the effect of using a toxic pesticide, or a public perception that oil contained a toxic chemical would affect the image of their product, and that would be of concern to the Canadian canola farmers?

A. It's a concern, yes, but it's a concern that could be addressed as the toxic pesticide, as you call it, wasn't present in the food product.

Q. I would just like to consider some issue--aspects of the PMRA's legislative authority. You would agree that PMRA has the legislative authority to process pesticide label changes.

A. Yes.

Q. In fact, when a Registrant writes saying it wishes to remove a certain use, PMRA has the duty to process that request?

A. Yes.

Q. You would agree that PMRA also has regulatory responsibility in Canada to process new product registrations?

A. Yes.

Q. And you understand PMRA has common law discretion to determine appropriate enforcement targets?

16:36 A. Yes.

Q. And PMRA also has the ability to seek to work with other national regulators to promote harmonization of registration standards?

A. Yes.

Q. Now, one of the things that the Claimant has suggested is that growers stopped buying lindane because some sort of--of some sort of threat of fines by PMRA, but Chemtura's own documents confirm there was no fear of any threat, don't they?

A. I'm only aware of a document that was put out by the CSTA, I believe, the seed treatment association, Fact Facts alerting members to possible finds of, I think, the Fast Facts of $200,000, which is inconsistent with the 250 that has been reported elsewhere. But no, I'm not aware of internal documents that say there was no threat.

Q. All right. Well, perhaps we could take a look at that. Let's take a look at Annex B-32, which is Document Number 166. And if I can--it turns out in Volume 5 of the hearing bundle. Sorry, B-32. It would be an exhibit to Mr. Ingulli's first Affidavit. B-32.

Right, this is it.

So, this is an e-mail from Mr. Vaughan of Gustafson. He was an employee of Gustafson; is that correct?

A. I don't know him personally.

Q. But--

16:38 A. I assume that.
Q. His email says "gustafson.com," doesn't it?
A. So, I would acknowledge that he was an employee.
Q. Right.
And it's dated Friday, January 12, 2001.
A. Yes.
Q. And mr. Vaughan is reporting about a conversation with Ross Pettigrew.
You're aware that Mr. Pettigrew was a PMRA enforcement officer. Are you aware of that?
A. I'm aware of that he's an enforcement officer, yes.
Q. Or Compliance Officer?
A. Excuse me. Compliance Officer.
Q. Right.
And he's reporting back, "I finally spoke to Ross Pettigrew about this, and he told me the following: The PMRA does have the authority to impose fines, but they probably would not. Generally, they only take people to court over things that intentionally cause harm or are dangerous."
Were you aware of this when you were suggesting that PMRA was threatening fines?
A. I wasn't--you mean today?
Q. Or when you made those statements in your affidavits, in your Witness Statements.
A. My view is that what Mr. Vaughan and what

16:40 Mr. Pettigrew think is not what's important here. What's important here is what the canola seed treating companies think and what the Councils think, and they think there is a threat of fines, or they wouldn't be putting out publications to their members saying they think there is a threat of fines.

Q. Mr. Pettigrew is a PMRA enforcement officer; you agreed? Or Compliance Officer.

A. Compliance Officer, yeah.

Q. Okay. So, the threat is not coming from the PMRA Compliance Officer, is it?

A. The threat is attributed to Mr. Reid, I believe, who you're not going to be producing as a witness. He was the Compliance Officer who made the comment that fines could be levied up to $250,000, is my understanding.

Q. You're aware that, when asked what Canadian legislation provided, Mr. Reid explained what that legislation provided?

A. I'm not aware--I wasn't at the meeting where he made these statements. I don't know that the question was put to him, "What is the law?" I don't know in what context the threat of fines came up.

Q. All right. Why don't we look at five, point five, on this e-mail. Already at point two you see they will be focusing on making sure there are no stockpiles of product and that nobody is intentionally treating and stockpiling seed for

16:41 2002.

So, you don't have any reason to disbelieve that this is what PMRA was actually focusing on?

A. I'm sure that the PMRA was interested in having people, especially the manufacturers, not overproduce and stockpile for use beyond the cut-off date of July 1, 2001, so I would agree.

Q. Right.

And number five of this e-mail, the 200,000-dollar number probably came from someone asking the question, "What are the potential fines that PMRA could administer for a violation of the PCP Act?" He felt that the 200,000-dollar number was put out as a motivation to get lindane used up and is not realistic.

And Mr. Vaughan goes on to say, "My general feeling from talking to Ross is that there won't be a big problem if everyone does their best to get the lindane used up. There may be a problem if it looks like anyone is stockpiling product or treated seed."

So, in fact, Chemtura knew at the time, it was quite clear that PMRA wasn't going to take enforcement action unless seed treaters or growers deliberately hoarded or stockpiled lindane seed treatment past the date of the phase-out?

A. It appears to me from reading number five that Mr. Pettigrew was speculating. He says the number 200,000

probably came from someone asking the question. He wasn't at the meeting. And while I don't doubt this is what the man said, I think he's speculating on what went on at that meeting.

Q. And you weren't at that meeting, either?

A. I wasn't at that meeting, either.

And again, I repeat, in my view, it doesn't matter what Mr. Pettigrew said--thinks or what Gustafson thinks. It's--what matters is what the growers and the associations that represent the growers think, and they think there is a threat of fines, and that resulted in substantial reduction in the sale of Lindane Products specifically attributable to the threat of fines because the seed companies did not want to wind up at the cut-off date with an inventory of treated seed that they would then have to dispose of as hazardous waste.

Q. Mr. Ingulli, you're aware of the fact that there was a drop in acreage between 1999 and 2001?

A. I'm aware that there was a drop from approximately 12 million acres to 9 million acres, which is a 25 percent drop.

Q. And that drop--sorry.

A. And over that same period, Chemtura's or Crompton's lindane sales dropped by 70 percent.

So, almost three times--our sales dropped almost three times as much as the acreage drop, and I attribute that directly to the threat of fines.

16:44 Q. Now, when you are talking about a drop in the amount of sold product, you're talking about in the 2001 period specifically?

A. Right.

Q. But, in fact, in the 2001 period, you're aware that all of the Canadian canola was still treated with lindane?

A. Yes.

Q. And so the product that was actually put in the ground in that year was treated with lindane?

A. Yes.

Q. So, when you talk about a drop in the amount of seed sold, you're talking about seed for use in 2001?

A. For use in 2001.

Now, I think the issue has to do with the drop--part of the issue has to do with the drop in acres, and the purchases of the seed companies anticipating--well, I guess I'm getting confused in my thinking.

Go ahead with your questioning.

Q. Well, just going back to your response, the--

A. Unless sales fell off also in 2000 to some extent, but go on.

Q. You're aware that Chemtura in its submissions said that they have suffered no loss of sales in 2000?

A. I'm not. I thought our sales declined somewhat in 2000.

16:45 Q. And, in 2001, what was planted in the ground was treated with lindane?

A. Yes.

Q. So, the amount of acreage in 2001 declined from as between 1999 and 2001 because of two issues--drought and the worldwide decline in canola prices--didn't it?

A. Yes, but drought is something that--seed is treated prior to the beginning of the season and prior to a grower's knowledge that there is going to be a drought. The drought happens during the growing season, so I don't--I don't see that drought could be responsible for drop in sales because no one could predict the drought until it actually happened, and by then the seed companies would have already treated the seed.

Q. I would just like to go to another document in the record, which is Annex R-339. It's number 148 in the witness bundle, which turns out to be Volume 4.

So, Annex R-339.

PRESIDENT KAUFMANN-KOHLER: Before you go into this, could I ask a clarification on the previous document.

You said that there was a 25 percent drop in acreage between '99 and 2001. You said your sales dropped by 70 percent--

THE WITNESS: Yes.

PRESIDENT KAUFMANN-KOHLER: --in that period.

When was Helix registered? Later?

16:48 THE WITNESS: I don't recall the exact date. I'm sorry.

MR. DOURAIRE de BONDY: Helix was registered in November of 2000.

PRESIDENT KAUFMANN-KOHLER: 2000.

Now, you said earlier, in connection with another question, you needed to have an alternative product if one is terminated, and so it is unclear to me how you can explain the 70 percent drop in your sales, must have been replaced by the sales of another product. Now we have understood the two Gauchos that are not the CS FL but the two other ones were not replacement products you told us, so what did the growers do to compensate for the 70 percent drop?

THE WITNESS: It sounds like they switched to Helix, if Helix was registered in 2002.

PRESIDENT KAUFMANN-KOHLER: Yes, but then we would have to see exactly how we get the chronology--whether we can get the chronology right. But we can check this with the actual dates.

MR. DOURAIRE de BONDY: Going back to that, Madam Chair.

BY MR. DOURAIRE de BONDY:

Q. You said, Mr. Ingulli, your understanding is the crop planted in 2001 was planted--was treated with lindane.

A. I guess--when I said that, I was under the impression

16:49 the only registered product was lindane. But if Helix was registered prior in time to be used for the 2001 season, then obviously the growers could have switched to Helix.

And I'm sure that John Kibbee, when he is here, will have much more--will present much more clearly the situation that I'm struggling with right now.

PRESIDENT KAUFMANN-KOHLER: We will ask him, then. Why don't you carry on with the question you were about to ask.

MR. DOURAIRE de BONDY: Sure.

BY MR. DOURAIRE de BONDY:

Q. I wanted to go to Annex 399, which is document 148 of the witness bundle. This is another Gustafson document from 2000. And if you would look to--I'm sorry. I think it's the next page of the same document. Yes.

It's the part that says, "The canola market is also in serious trouble in Western Canada. There are some analysts predicting acreage to be as low as 9 million acres in 2001. If this is the case, the entire treated acreage will be covered with lindane-based treatments. We are completely sold out of our inventory primarily as a result of getting our key distributors to commit to the 2001 season back in 1999. As you know, we did this by forward-selling our product at 1999 pricing and by providing extra incentives such as extended credit terms and allowances. If the acreage reduction scenario holds true, this will have turned out to be a wise decision."

16:52 So, in fact, this document is confirming that Chemtura didn't lose any lindane product sales at all in that 2001 season because those sales were forward-booked, weren't they?

A. That's what that document says.

Q. And that's a Chemtura internal document?

A. Yes.

Q. And you have no reason to dispute the validity or veracity of that document?

A. I don't have sales data here in front of me, so I can't dispute or agree with it.

Q. Thank you.

A. But I agree it is an internal document.

Q. I just wanted to go back to another of the conditions of the Voluntary Withdrawal Agreement, what you have termed as "conditions." It's something in your October 27th, 1999, letter. And one of those stated--one of those you stated was that Chemtura would be granted administrative reinstatement of this product. Is that correct?

A. Yes.

Q. And this was conditional upon EPA issuing a tolerance for lindane use on canola.

A. Yes.

Q. And this was also conditional upon PMRA confirming it would--or achieving a clean result in the Special Review.

A. Yes.

16:53 Q. Now, as of 1999, had the U.S. EPA issued a tolerance for lindane use on canola?
A. No, no.
Q. And as of 2000, had the U.S. EPA issued a tolerance for lindane use on canola?
A. No.
Q. How about 2001?
A. No.
Q. So, as of 2001, Chemtura was aware there was no tolerance?
A. Yes, that's correct.
Q. So, this condition or you stated condition for administrative reinstatement, in fact, had not been fulfilled?
A. That's correct.
Q. In fact, EPA never did issue a tolerance for lindane use on canola, did it?
A. No. We didn't because we abandoned our petition for registration.
Q. And you abandoned your petition for registration because the U.S. EPA said, "If you don't submit a voluntary withdrawal, we are going to cancel your product"?
A. I saw that in Lynn Goldman's testimony, but that's not my impression. My impression is that we had already lost the Canadian lindane market, which was the main driver for our attempting to get a tolerance in the United States. The EPA,

16:54 in their REN, was looking for additional data that would have been expensive to generate, and there was no point in generating that--incurring that expense in generating that data, particularly in light of the fact that through an acquisition of a company called Trace Chemicals, we picked up a series of products that acted as replacements for lindane in the United States where we had registrations on many crops for lindane.

So, the registration and tolerance became a moot point.

Q. And that was in 2006?

A. That was, I believe, 2005 or 6.

Q. So, as of that point you neither had registration nor tolerance lindane use on canola in the U.S.?

A. That's correct.

Q. And that was despite the fact you were seeking that registration or tolerance since 1999?

A. We were not focusing great resources on getting that tolerance. Our focus was getting reinstatement in Canada. There were some effort--I don't deny that--but our main focus was getting reinstatement in Canada.

Q. Were you involved directly in the Chemtura's efforts for seeking a registration or a tolerance in the U.S.?

A. Not particularly.

Q. So, you don't have any direct knowledge of what the

16:56 U.S. EPA was saying about the prospects for the Chemtura applications?

A. I do not, beyond what I read in Lynn Goldman's testimony.

Again, I would urge you to address your questions relating to the EPA registration and their position on lindane to Paul Thomson, who will have much more knowledge than I do.

Q. All right. I will not pursue my questions. Thank you. I'm finished with my questions.

PRESIDENT KAUFMANN-KOHLER: Does this end your cross-examination?

MR. DOURAIRE de BONDY: Yes, thank you.

PRESIDENT KAUFMANN-KOHLER: I thought it was just the end of one question.

MR. DOURAIRE de BONDY: No.

PRESIDENT KAUFMANN-KOHLER: Do you have any redirect questions, or would you like to confer about it?

MR. SOMERS: Yes, if I could just a moment, Madam Chair.

(Pause.)

MR. SOMERS: No redirect by the Claimant. Thank you, Madam Chair.

PRESIDENT KAUFMANN-KOHLER: Thank you.

Do my co-Arbitrators have questions?

ARBITRATOR BROWER: No.

16:58 ARBITRATOR CRAWFORD: Yes.

PRESIDENT KAUFMANN-KOHLER: Please.

QUESTIONS FROM THE TRIBUNAL

ARBITRATOR CRAWFORD: Thank you, Mr. Ingulli, for your very clear and, if I may say so, fair answers.

Would you characterize the PMRA's attitude to your requests in relation to lindane as basically dishonest?

THE WITNESS: I would characterize the process that they used as not being scientifically rigorous. I would characterize them as having a predetermined outcome for the scientific review, the predetermined outcome being the cancellation of the registrations of lindane. I would support that statement with the comment that the study that the PMRA relied on, worker exposure study, the famous Rob Dupree worker exposure study that was submitted to the PMRA after my meeting with Claire Franklin and Wendy Sexsmith, the PMRA had to know--had to know--that that study did not reflect current seed treating practice in Canada, and that the exposures that would have been reflected in that study tremendously exceeded the exposures that, in reality, were being experienced by workers in seed treatment plants in Canada, and I think it was disingenuous of the PMRA not to do a Date Call-In, saying to Crompton, "The study you have submitted is not acceptable, and please go out and generate another study."

Does that answer your question? If not--

17:00 ARBITRATOR CRAWFORD: Well, it's responsive to my question--let me put it that way--but I think I'm allowed to ask you questions.

THE WITNESS: Excuse me. I apologize.

ARBITRATOR CRAWFORD: No need.

No, I have no further questions.

ARBITRATOR BROWER: The question just asked provokes this one from me.

The Dupree study was submitted by your company.

THE WITNESS: That's correct.

ARBITRATOR BROWER: And you say it was outdated.

THE WITNESS: The study was conducted in 1992.

ARBITRATOR BROWER: Right.

THE WITNESS: And for whatever reason, the person who submitted it must not have been aware of the fact that that study did not reflect current seed treating practices in Canada as of the year 2000, when it was submitted.

ARBITRATOR BROWER: So that somehow your company did not realize this and, therefore, failed to call its outdated character to the attention of the PMRA to carry out an additional study?

THE WITNESS: We did not realize it until the Special Review was completed and we found out that occupational exposure was the focus of the Special Review and the sole basis for canceling the product. And at that point, then we began to

look at internally with our own scientists the findings of the PMRA to see if we agreed with those findings, and that's when we realized that the study that they base their conclusions on were--was outdated.

ARBITRATOR BROWER: Right, but that was all submitted by Crompton.

THE WITNESS: No, it isn't. Another study was submitted, called the "Korpalski study," which, again I would appreciate it if you direct these questions to the technical people, but my impression is that the PMRA applied the same excessive margin-of-safety factor in that study and came up with the same conclusion.

It's also my conclusion that the EPA also looked at that study and vindicated lindane as far as worker exposure is concerned, but please ask those questions to the technical people.

ARBITRATOR BROWER: Okay. Thank you.

PRESIDENT KAUFMANN-KOHLER: Maybe that's also a question for the technical people, you will tell me, but can you just explain to us what the seed treatment practices are, because you said in particular they were very different in the U.K., and you said that makes a difference with respect to the protection of the workers.

THE WITNESS: Yes.

PRESIDENT KAUFMANN-KOHLER: Can you tell us in terms

for nonspecialists so we understand what these treatment practices are, and what type of protections are used.

THE WITNESS: I will do the best that I can, but again the right person to ask that question to would be John Kibbee, who is a specialist in the--in that area.

PRESIDENT KAUFMANN-KOHLER: I save it for him.

THE WITNESS: Please don't forget.

PRESIDENT KAUFMANN-KOHLER: You want to try to answer it nevertheless, now you're sorry that you said that. Can you say it in a few words.

THE WITNESS: Yes.

There are open systems, and there are closed systems. In an open system, the seed treatment formulation is open to the atmosphere and available to come in contact with the worker. In a closed system, everything is enclosed, as the name implies, and the seed treatment chemical is much less likely to come in contact with the worker.

In addition to that, it's common practice for--throughout the chemical industry, not just in seed treatment, for workers to wear gloves, to wear protective clothing, long sleeves, rubber boots, to avoid--masks to avoid dermal contact or inhalation of the chemicals.

And this was not a requirement, as far as I know, back in 1992, but it is a requirement now.

And again, please, don't forget the ask the question

17:05 because I think you will get a very good answer from John Kibbee.

PRESIDENT KAUFMANN-KOHLER: Thank you.

If I read in particular Mrs. Sexsmith's Affidavit, she gives her version of the facts--of many of the same facts that you have testified on, either orally or in writing. And in particular on the question of the Voluntary Withdrawal Agreement and whether the relevant terms were agreed upon in November '98 or rather in October '99, and she in particular writes that in December '98, so that's the months following this meeting on 24th of November '98 that was then confirmed by a letter of 26 of November that we have seen several times today, so in December '98 she says, "Chemtura began what turned into a year-long campaign to unilaterally change or add to the terms agreed on November 24."

What can you say to us about--this is one of the important issues we have to resolve here; right?

THE WITNESS: Uniroyal, or Crompton, the Claimant, contends that no agreement was reached at the November 24th meeting. I personally questioned Rob Dupree, who was one of the attendees from our company at that meeting, whether or not he or the other attendee agreed to anything at that meeting. His response was, "No, we did not agree to the terms and conditions of the Voluntary Withdrawal Agreement as proposed by the CCGA."

17:07 Furthermore, no one at that meeting from my company, from Crompton, was authorized to agree to withdraw the company's most profitable product in Canada. There were only two people in the entire corporation with the authorization to make that decision: That was me and the CEO of the company.

As early as two days after the November 24th meeting, a letter was sent, outlining conditions under which Crompton would consider a voluntary, quote-unquote, voluntary withdrawal. So, only two days after that meeting, already conditions were being surfaced. Neither side, neither the plaintiff or the defendant in this case has produced any documents, any signed document, demonstrating that the company--that Crompton agreed on November 24th to anything.

And, to me, it only makes sense that a company that is being asked to surrender its most profitable product for no compensation would only agree to do that under the terms and conditions that was satisfactory to it as opposed to terms and conditions that were manufactured by an industry association or by the PMRA.

So, our view is that absolutely no agreement was reached. There are many references from the PMRA in the record that show that, for instance, the term that "the company agreed in principle," which to me implies there is yet more to come, if it's just an agreement in principle.

PRESIDENT KAUFMANN-KOHLER: Yet the principle is

17:09 agreed when you have an agreement in principle. The rest is not agreed, but the principle is agreed. How should I understand this?

THE WITNESS: Perhaps the principle of voluntary withdrawal was recognized, but not without terms and conditions that had to be agreed to. And if the terms and conditions weren't agreed to, there was no agreement. Even in the ROU, which refers to this Voluntary Withdrawal Agreement, it talks about the Registrants being asked to voluntarily withdraw, not that they agreed to voluntarily withdraw, but that they were asked to voluntarily withdraw.

PRESIDENT KAUFMANN-KOHLER: We have seen a number of documents where they raised this.

THE WITNESS: There was no final agreement. There was no final agreement until I put my signature to it in October of 1999, and that agreement was acknowledged in writing by Dr. Franklin in a letter to me, saying, "We accept the terms and conditions of your withdrawal agreement."

PRESIDENT KAUFMANN-KOHLER: That was the letter of 28 October, yes.

I'm sorry, but I have to make sure that my questions have been asked.

(Pause.)

PRESIDENT KAUFMANN-KOHLER: There is this argument on Chemtura to say that the Voluntary Agreement is not a Voluntary

17:11 Agreement as a forced--not a forced agreement but an imposition.

I have difficulty with that when I read your letter of October 27th, of October '99, and then see an answer that says, "We agree from the PMRA." Can you explain to me what is meant by this forced agreement.

THE WITNESS: Let me try to explain.

We were dealing with the Agency that basically controlled the fate of our registration, and it was my firm belief that the PMRA had an agenda to eliminate lindane--all lindane registrations and take the product completely off the market. And with that anticipation, I felt that we were better off withdrawing the product under our own terms and conditions rather than have it canceled by the PMRA, and in turn we would get the benefit of the terms and conditions that were in the withdrawal letter. As it turned out, we didn't get the benefit of the terms and conditions in the letter. For instance, the accelerated review of the replacement product, Gaucho CS, that registration request went in only four months after I signed that withdrawal letter--four months--and yet it took roughly double the normal amount of time for it to be registered.

We lost the registrations on the non-canola crops, which was part of the conditional withdrawal. Just about every term and condition in the Withdrawal Agreement was violated by the PMRA.

17:13 But the reason why we ultimately agreed to, quote-unquote, voluntarily withdraw the registration is the anticipation if we didn't, they would be gone anyway, and we would rather have them go under our terms and conditions than the PMRA's terms and conditions.

PRESIDENT KAUFMANN-KOHLER: So, it was not really forced to agree, but you were actually choosing between two evils and choosing the lesser evil?

THE WITNESS: The lesser of two evils.

PRESIDENT KAUFMANN-KOHLER: Fine. I think I have no further questions.

Yes, Judge Brower.

ARBITRATOR BROWER: We were referring to your letter October 27, 1999. You just mentioned one of the benefits of that that you did not get was accelerated review hopefully approval of replacement or substitute products. Can you show me where that is in that letter.

THE WITNESS: Actually, it isn't in that letter. It's not in that letter. I apologize.

ARBITRATOR BROWER: Okay, because I don't see it.

THE WITNESS: The expectation for an accelerated review was based on correspondence and discussions with the PMRA that preceded this letter, and I apologize. I misspoke when I said it was in the letter. It's not.

ARBITRATOR BROWER: Okay. Well, that leaves us with a

17:15 question of what is the status of the situation on that point. You feel that is a legitimate expectation, although not an agreement, or how would you describe it?

THE WITNESS: The accelerated registration?

ARBITRATOR BROWER: Right.

THE WITNESS: It wasn't a point that was acknowledged in writing by Claire Franklin when she accepted the letter that I wrote, but there is much documentation in the materials that you have where the PMRA commits to facilitate accelerated registrations of replacement products. There must have been enormous pressure on the PMRA to register a product to replace lindane. They were going through a process where they were asking Registrants to withdraw their products that were needed by canola growers in Canada to treat a devastating pest, the flea beetle, without having a registered product to hand the growers so that they could protect themselves from the damage of the flea beetle.

So, there must have been enormous pressure, and I can understand why. They would say they would facilitate the registration of replacement products. They would have been--there would have been tremendous pressure, political pressure, from representatives of the growing Provinces to get those registrations through as quickly as possible.

ARBITRATOR BROWER: And you say the request for registration of the Gaucho 01 product, if I could call it that,

17:16 was submitted within four months of October 27?

THE WITNESS: That's right. I think it was--was it March? I think it was March, I think, so the letter was written in October, so it was little more than four months.

ARBITRATOR BROWER: And when was Helix approved again?

THE WITNESS: Helix, what was the date? It was 2000, I think. You had said the date previously.

MR. DOURAIRE de BONDY: It was approved after having been submitted in November 1998. It was approved--it was submitted in 1998 and approved in November of 2000.

ARBITRATOR BROWER: All right. And--okay. All right. I think I understand the situation.

THE WITNESS: Thank you.

PRESIDENT KAUFMANN-KOHLER: Fine. So, if there are no further questions, I would like to thank you very much for your answers.

THE WITNESS: Thank you for the opportunity.

PRESIDENT KAUFMANN-KOHLER: That closes your examination.

THE WITNESS: Thank you.

(Witness steps down.)

PRESIDENT KAUFMANN-KOHLER: We need to have the times for each Party before we suspend.

SECRETARY VINUALES: So far, the Claimant has used one minute, and the Respondent has used one hour and 27 minutes.

17:18 PRESIDENT KAUFMANN-KOHLER: So, you still have plenty of time.

Tomorrow morning, we will start with Mr. Thomson, then we will hear Mr. Kibbee, and in the afternoon Mr. Johnson and Mrs. Chaffey. Is that right? Fine.

So, we can close for the day. Thank you very much.

MR. DOURAIRE de BONDY: Thank you.

(Whereupon, at 5:18 p.m., the hearing was adjourned until 9:00 a.m. the following day.)

CERTIFICATE OF REPORTER

I, David A. Kasdan, RDR-CRR, Court Reporter, do hereby certify that the foregoing proceedings were stenographically recorded by me and thereafter reduced to typewritten form by computer-assisted transcription under my direction and supervision; and that the foregoing transcript is a true and accurate record of the proceedings.

I further certify that I am neither counsel for, related to, nor employed by any of the parties to this action in this proceeding, nor financially or otherwise interested in the outcome of this litigation.

_____

DAVID A. KASDAN