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

BETWEEN:

CHEMTURA CORPORATION
(FORMERLY CROMPTON CORP.)

Claimant/Investor

- AND –

THE GOVERNMENT OF CANADA

Respondent/Party

REDACTED
REPLY of the CLAIMANT/INVESTOR

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PART ONE INTRODUCTION

1. This Reply is made by Chemtura Corporation ("Chemtura") in response to the Counter-Memorial, Affidavits and Expert Reports of the Government of Canada ("Canada") filed on October 20, 2008. [1]

2. This arbitration relates to Chemtura's sales of certain lindane-based pesticides in Canada for use on canola, mustard, cereal and cole crops.

3. Canada, through its Pest Management Regulatory Agency (the "PMRA"), wrongfully terminated this business.

4. In its submissions, Canada has attempted to portray the PMRA as a force for the good, acting in pursuit of its statutory mandate. However, the evidence paints a different picture. It reveals that the PMRA sought to engineer the demise of lindane in Canada.

5. Canada also describes the PMRA as a mere "facilitator" in the process leading to the conditional withdrawal agreement (the "CWA") on lindane seed treatment products for use on canola. The evidence makes clear, however, that the PMRA was at all times an active driver of the CWA process, consistently acting outside its proper regulatory mandate and, indeed, acting in direct contravention of its governing legislation, and authorizing the Canadian canola industry to act in contravention of that law.

6. Finally, the evidence shows that when the PMRA terminated the use of lindane seed treatment products on non-canola crops, it did so without proper scientific

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[1] This Reply will use the terms as defined in Chemtura's Memorial. The absence of a specific response to any point raised by Canada in its Counter-Memorial does not constitute acquiescence or agreement on the part of the Investor with any such point. Moreover, and as stated below, many of the points raised by Canada in its Counter-Memorial are irrelevant to the issues in dispute and before the Tribunal in this arbitration.

foundation, in an arbitrary, non-transparent manner and with a complete denial of due process to registrants.

7. By virtue of Canada's actions, Chemtura suffered significant financial loss and was forced out of the canola seed treatment market in Canada.

PART TWO THE FACTS

I. A Decade of Wrongs

8. Canada's Counter-Memorial and affidavits comprise several hundred pages, most of which do not respond to the issues raised by the Investor. It is clear that Canada's strategy in this arbitration is either to bury the real issues in a mountain of minutiae or to recast them with a self-congratulatory public safety spin.

9. This strategy seeks to exploit the fact that the Investor's case is not about a single act but rather about a pattern of conduct that has continued for several years. Indeed, this pattern of conduct has now lasted more than a decade. In fact, this pattern of conduct has continued through this arbitration, including the week before this Reply was filed, and appears likely to continue until the PMRA's façade of conducting a neutral re-evaluation of lindane has run its course and the decision made by the PMRA a decade ago is re-confirmed.

10. Canada seeks to frame this arbitration and the issues in dispute in the context of human health and the environmental concerns, even though these concerns could not have been more remote as a motivating factor behind the PMRA's conduct in the relevant period. The reality is that, the PMRA is a statutory authority and was bound to act within the scope of its statutory mandate, for proper purposes, and in accordance with due process. When a government agency ceases to act in accordance with its statutory framework, all points of reference are lost for those whose business interests are subject to its regulation. Once an agency disregards one part of its governing legal framework, how is one to know what other parts of this framework will be ignored? When the regulator is choosing which parts of

the law will be applied and which will not, the regulator is, in effect, acting above the law. More accurately, there effectively is no law.

11. That is the "business environment" in which Chemtura's investment was forced to operate.

12. Given Canada's strategy for this case, it is important to recall two key components of the factual matrix of this case.

13. *First*, an independent adjudicative body has already judged the actions of the PMRA and found them to be wanting. Canada attempts to muddy the waters of this arbitration by focusing on fine details of the science, as though the parties were once again before a Statutory Board of Review, as opposed to an international investment treaty arbitral tribunal. The parties have been down this path and know the result: the Lindane Board of Review (the "Review Board"), an independent expert panel with a high level of competence in the relevant scientific fields relating to pesticides use and regulation as well as fairness in the related administrative process, has pronounced on these matters. Their findings provide the departure point from which Canada's conduct, through the PMRA, must be assessed.

14. *Second*, the conduct of the PMRA following the Review Board's Report is telling. The PMRA re-evaluation process, beginning in 2006, has served two purposes: (1) finding a way to justify the PMRA's prior actions and to maintain the ban on lindane; and (2) giving Canada support in this arbitration for its position that Chemtura was accorded due process. It is readily apparent from the evidence that Canada's concern, following the issuance of the Review Board's Report is, not genuine due process, but the appearance of due process. In Chemtura's experience with the PMRA over the past 10 years, this appears to be business as usual for the PMRA.

A. The Lindane Board of Review Found the PMRA's Analysis Flawed and Scientifically Unsound

15. The background with respect to the Review Board is described in Chemtura's Memorial.[2]

16. By way of brief summary, in late 1998 through 1999, the PMRA actively drove a process by which registrants, including Crompton Canada, reluctantly agreed to withdraw the registrations for lindane for use on canola, conditional on certain commitments from the PMRA. Among these were the commitment that the PMRA would conclude its re-evaluation of lindane by the end of 2000 and that registrations for use on crops other than canola would be permitted to continue.

17. The PMRA's "Special Review" was not concluded until the end of 2001 and it resulted in the termination of registrations of lindane based seed treatments for the non-canola crops. These constituted two important breaches by the PMRA of the CWA.

18. The PMRA's "justification" for the termination of these remaining registrations was said to be occupational exposure. However:

- The PMRA never made known that its apparent focus of the Special Review was occupational exposure;
- The PMRA never requested data from Chemtura in respect of occupational exposure;
- The PMRA did not properly consider occupational risk mitigation options;

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[2] Investor's Memorial, paras. 256-275.

- The PMRA's conclusions were contrary to those of the EPA, notwithstanding that the PMRA's primary rationale for the delay in finalizing the Special Review was that it was waiting on the results of the EPA's assessments; and

- After reviewing lindane for nearly 3 years, the PMRA initially gave registrants one week to provide comments on the PMRA's occupational exposure risk assessment; even with extensions, registrants were given only a few rushed weeks to comment, which obviously precluded any submission of new data in response to the PMRA's alleged concerns.

19. Given the flaws in the PMRA's scientific approach and conclusions, and its failure to provide any meaningful opportunity to participate, Chemtura requested that the PMRA's conduct and conclusions be reviewed by the Review Board.

20. Canada and Chemtura are in agreement that the Lindane Board of Review, once properly constituted, adopted a fair procedure and offered the Investor a full opportunity to be heard within the prescribed hearing procedure. This is, in fact, a key feature that distinguishes the Review Board proceedings from the PMRA's Special Review.

21. In order to address the PMRA's occupational exposure concerns (such as they were), Chemtura during the course of the Review Board proceeding offered to discontinue certain of its registrations, principally the powder (as opposed to liquid) formulations. Chemtura also provided certain studies that had not been completed by the time of the Special Review.

22. In this regard, Canada in its Counter-Memorial claims that during the Board of Review proceedings Chemtura submitted copies of certain studies "that had not been completed at the time of the Special Review" and "put a proposal to the Board for Lindane registration that was narrower in scope, and included much greater mitigation measures than that which it requested at the time of the Special

Review".[3] Canada further alleges that Chemtura "damaged its position" by requesting the continued registration of only two liquid lindane products and that because these mitigation measures were not suggested by Chemtura at the time of the Special Review, they were not considered by the PMRA.[4]

23. Canada conveniently omits that some of the key findings of the Lindane Review Board were that the PMRA had failed to provide an adequate opportunity to make representations to the PMRA or to comment on the process, that the PMRA had failed to communicate the worker exposure focus of its review (which relates directly to mitigation measures), and that the PMRA had failed to assess risk mitigation opportunities, whether based on the materials submitted to it by registrants or the current status of industry practices, of which it should have been aware.[5]

24. It is also important to understand that, in view of the draconian steps the PMRA had taken, eliminating Chemtura's entire lindane product business in Canada, Chemtura was prepared to potentially give up some minor uses and products if this meant preserving the major uses. Chemtura would have proposed these or other mitigation measures if the PMRA had been open to any dialogue or consultation during the Special Review. The PMRA was not.[6]

25. Canada spends little time discussing the Review Board's conclusions, electing to focus instead on attacking Chemtura for having pursued vindication of its legal rights.[7] This is not surprising given that the Review Board identified grave flaws

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[3] Canada's Counter-Memorial at para. 387.

[4] *Ibid,* at para. 388.

[5] Second Confidential Statement of Evidence of Paul Thomson, dated May 15, 2009 ("Second Thomson Statement") at para. 79.

[6] Second Thomson Statement at para. 80.

[7] Second Thomson Statement at para. 81.

in the PMRA's Special Review, which wholly contradict Canada's position in this arbitration as regards the reasonableness of the PMRA's conduct and the soundness of its Special Review.

26. Certain of the conclusions that Canada presents in summary form are also inaccurate and misleading. It is, therefore, necessary to set out the Review Board's key substantive findings in full. The following passages are lengthy, but important, because an independent adjudicative panel, comprised of respected scientists, has already assessed the PMRA's scientific conclusions and process and found that the PMRA's conduct and conclusions were seriously deficient. The key findings of the Review Board relating to procedural fairness and the scientific assessment are set out below.

1) The Review Board's Key Findings Regarding Procedural Fairness

> 103. While it is appropriate for PMRA officials to manage the Special Review process in a way that allows it to come to an informed and expeditious conclusion, and in accordance with the requirements of the Regulations, in the opinion of the Board, registrants should be permitted the opportunity to make representations to those officials before a decision is issued that adversely affects their products, particularly where the decision is, as it was in this case, as dramatic as a cancellation of registrations.
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> [...]
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> 106. Although the PMRA maintains that Crompton was given an adequate opportunity to provide input regarding the conclusions reached in the Special Review regarding the registration of Lindane products, the Board is of the view that to give life to s. 19 of the *Regulations* in a manner consistent with the principles articulated in *Baker,* [a Supreme Court of Canada decision which set out an administrative decision-maker's duty to accord of natural justice and procedural fairness], **a meaningful opportunity for input should have been given to Crompton, particularly when PMRA officials began forming the view that the registrations should be cancelled and after the risk assessment was completed but before the Minister's decisions were finalized.**
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> 107. The Board does not intend to prescribe the manner and degree to which PMRA should engage registrants in the Special Review process as that will depend on the circumstances and needs of each particular case. However, where cancellation of registrations for a product such as

Lindane, which has had a long-standing approval for use in Canada is being considered, affected parties should be alerted to the conclusions being formulated and be provided with a meaningful opportunity to comment on those concerns.

108. With the foregoing in mind, the Board notes that it was not PMRA, but rather CIEL that brought the issue of occupational risk to the parties' attention. Moreover, **the Board does not believe that occupational risk was discussed to any significant extent, and further, was not presented as a fundamental aspect of PMRA's Special Review until the risk assessment was completed in October 2001.**

[...]

112. **Nevertheless, the Board is of the view that once PMRA knew its focus in the Special Review was going to be on occupational risk, it should have advised Crompton, knowing that the Special Review announcement made no mention of occupational risk, and knowing that all communications it had with Crompton were primarily in respect of environmental concerns.**

113. Although the process may be different in respect of new evaluations as compared to re-evaluations (including Special Reviews), the Board feels that PMRA does have an obligation to advise the registrant of the focus of its inquiry and review. Proceeding in this manner could have led to a more robust scientific inquiry and assessment.

[...]

119. ... **the Board can see how Crompton may have been taken aback by PMRA's decision and left with wholly insufficient time to prepare an adequate response for the reasons indicated above as well as the limited detail and documentation provided by PMRA for its calculations. In this regard, the Board is mindful of the fact that it took PMRA nearly three years to conduct the Lindane Special Review, but provided just a few weeks for Crompton to respond**.

120. **The Board finds that the comment period afforded to Crompton once PMRA completed its risk assessment was inadequate.** The revocation of a registration is the most severe and restrictive measure a regulator can take, and, in the Board's experience, it is left for the most harmful of products, at least to the extent that PMRA deregisters a product without giving the registrant a reasonable amount of time to address mitigation. **In his evidence, John Worgan of PMRA himself admitted that it was unusual for PMRA to come to a decision so quickly and without adjusting its findings at all after comment from registrants.**

121. **In the Board's view, there seemed to be considerable haste on the part of PMRA after the risk assessment was released in October 2001 to bring the matter to a close. This haste was particularly perplexing given that Lindane had been in use for over 40 years**. To the extent that mitigation could be adequately addressed, the Board believes that Crompton ought to have been provided more time to address concerns arising out of the risk assessment.

122. **The Board appreciates that at least some of the concerns raised by PMRA in its review, most notably issues related to sensitivity of the young, might give rise to concerns of an imminent nature. Notwithstanding that, the Board is of the view that given the timing of the announcement of the outcome of the Special Review by PMRA, and the limited use season for Lindane, other options for effective control could have been invoked in the short term. This, in the Board's opinion was a major flaw in the process, leading to an unsatisfactory result**. Addressing mitigation, in the Board's opinion, is fundamental in conducting a robust scientific inquiry leading to a regulatory decision. It is clear to the Board that this did not occur in the case of Lindane.

[...]

126. In the Board's opinion, PMRA was or should have been aware of the current status of industry practices. **The Board is surprised that PMRA did not discuss current practices or the existence of outdated label language in the re-evaluation.**

127. To that end, **the Board concludes that the risk mitigation stage that should have followed PMRA's risk assessment was not adequate** and that PMRA did not consider, nor did it give an adequate opportunity to interested parties to propose, risk mitigation opportunities that were not only available at the time, but were, in some cases, already operational.

128. The Board has noted elsewhere in this report that the decision-making process followed by PMRA should have included two sequential and interrelated steps; the risk assessment of existing approved uses and the risk mitigating process intended to identify opportunities for risk reduction. The Board considers this latter phase – the risk mitigation process – to be critical in the overall regulatory process. Taking into account all of the foregoing, the Board finds that the first stage – the risk assessment process – carried out by PMRA was adequate (notwithstanding certain limitations, previously addressed in this Report) and consistent with existing regulations as they applied to Lindane registrations of the time. However, **the second stage – the overall decision of the Minister to, effectively, cancel all Lindane registrations – was made without adequate consideration of risk mitigation opportunities and resulted in an outcome that the Board does not consider to have been fair to all potentially affected parties.**

[Emphasis added]

2) The Review Board's Key Findings Regarding Scientific Issues

162. In the end, the Board concludes that the two competing hypotheses, which have been invoked by PMRA and Crompton to explain the apparent increased toxicity in the young, cannot be definitively resolved on the basis of the available knowledge. **While the evidence of sensitivity of the young cannot be clearly refuted, the evidence in support of it is minimal. The Board therefore recommends that PMRA consider the use of an adjustment factor other than the maximum default.**

163. **The Board further concludes that it is PMRA's responsibility to invoke uncertainty factors in accordance with well-established practice** both in Canada and internationally, in order to take appropriate account of uncertainty in knowledge as well as severity of endpoint.

164. Having said this, **the Board notes that clear no effect levels were derived for critical outcomes, and that the traditional paradigm for uncertainty (10x10) already takes into account both inter- and intra-animal variability,** and that additional uncertainty factors are generally reserved for endpoints that are not adequately addressed, either in terms of severity, or nature of the endpoint, by the traditional default paradigm described above.

[...]

170. The Board also notes that concern related to immunotoxicity endpoint was initially raised by an evaluator with PMRA who noted that the potential immunotoxicity endpoint was identified from studies published in the open scientific literature. **In reviewing the concerns and observations of this evaluator, the Board notes that PMRA typically would not accept summary reports characteristic of the published literature in general, as evidence to dismiss a presumption of an effect and that only comprehensive study reports that include individual animal data would typically be considered acceptable for PMRA's purposes.**

171. Moreover, the Board particularly notes that PMRA's review of the toxicological endpoint of concern was associated with handling of Lindane of either unknown or poor purity and that contaminants could be a major contributing factor in the underlying immunotoxicity. **Interestingly, the PMRA reviewer primarily responsible for the evaluation of the immunotoxicity endpoint had observed that the issue of purity in and of itself was sufficient to render the results of the published reports to be of dubious value.** The Board appreciates that, despite the fact that neither JMPR or EPA considered Lindane to raise concerns of increased immunotoxic potential, PMRA came to a

different conclusion. The Board discusses below, the weight that, in its view, ought to be given to this concern.

172. The Board is aware that regulatory agencies attempt to use all of the appropriate toxicology and exposure data available when conducting risk assessments. While they typically rely on results from standardized studies conducted under good-laboratory-practices, they must, at times, rely on information obtained from the open literature. **The Board is of the opinion that when the validity of the studies it is relying on are in question, PMRA ought to clearly document its concerns in an appraisal of the assessment itself. In the case of Lindane, PMRA relied on non-standardized studies with unclear methods and procedures and still found evidence only consistent with, rather than actually documenting, endocrine effect.**

[...]

179. **In the context of PMRA's evidence regarding the process it invoked in the selection of the additional uncertainty factor utilized in the case of Lindane, the Board notes that PMRA re-affirmed its selection of an additional 10x uncertainty, over and above the standard default of 100x, to account for its interpretation of sensitivity in the young, immunotoxicity and endrocrine effects. However, PMRA also acknowledged in testimony at the hearing, that an additional uncertainty factor as low as 3x would be considered adequate by many toxicologists for the specific endpoints at issue and would not be inconsistent with internationally accepted evaluation criteria.**

180. **While the Board understands that PMRA's hazard and risk assessment that resulted in the cancellation did not include evaluation of carcinogenicity issues, the Board does consider it unfortunate that the re-evaluation of Lindane, a process that consumed almost two and half years, is not considered by PMRA to be complete and would need to be re-visited if registration of any kind were again to be considered.**

[...]

185. **The Board is concerned that PMRA was prepared to make a determination as to the appropriateness of aggregation of exposure, knowing the impact of this decision on the overall risk assessment, on the basis of a draft interim JMPR report, but was, seemingly, not motivated to verify whether this endpoint had survived the review and debate by the full JMPR committee.**

186. Given the importance of the issue of aggregation to the overall risk assessment and because PMRA did not request or review the original dermal toxicity study in order to arrive at an independent conclusion rather than simply adopting, as their own, the conclusions of

the temporary advisor who prepared the initial draft review of the study on behalf of JMPR, the Board attaches less weight to that assessment.

187. **The Board is especially concerned that while PMRA rejected inferences regarding the toxicological outcome of the dermal study presented to its witnesses by Crompton during the hearings because it had not had an opportunity to independently review the entire study, PMRA did not have any such reservation about adopting the conclusions of a JMPR temporary advisor in the context of an interim draft report which, in the end was not endorsed by the JMPR. In light of the foregoing, and the Board's assessment of the positions adopted by both JMPR and EPA on this issue, the Board finds that a conclusion of common toxicological endpoints and aggregated exposure for both inhalation and dermal exposure, as concluded by PMRA, is not sufficiently supported.**

[...]

217. The Board has carefully considered the matter of increased toxicity in the young and the possible relationship of the observation of increased exposure and/or increased sensitivity. **While, in the Board's opinion, the evidence for sensitivity of the young cannot be clearly refuted, the evidence is suggestive as opposed to conclusive. The Board recommends that this be taken into account when considering the need for an additional uncertainty factor.**

[...]

219. While Crompton disputed these findings, PMRA considered Crompton's response to be inadequate to resolve its concerns. PMRA considered the additional studies insufficient in that they did not fully address the full suite of possible immunotoxicological outcomes. In its defence, Crompton points out that the full JMPR committee subsequently withdrew their immunotoxicity concern. Furthermore, Crompton argued that conclusions of immunotoxicity in the open scientific literature were based on studies of either poor or unknown Lindane quality, and further, that the purity (or lack thereof) of technical Lindane is a major determinant of its potential immunotoxicity. **In the Board's opinion, the evidence for Lindane related immunotoxicity is not compelling. This should be taken into account when considering the need for additional uncertainty factors.**

220. The Board is aware that regulatory agencies attempt to use all of the appropriate toxicology and exposure data available when conducting risk assessments. While they typically rely on results from standardized studies conducted under good-laboratory-practices, they must, at times, rely on information obtained from the open literature. The Board is of the opinion that when the validity of the studies it is relying on are in question, PMRA ought to clearly document its concerns in an appraisal of the assessment itself. In the case of Lindane, PMRA relied on non-standardized studies with unclear methods and procedures and still found

> evidence only consistent with, rather than documenting, endocrine effect. The Board is of the view that using a maximum adjustment factor, despite the lack of severity or validity, is excessive.
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> [...]
>
> 222. **The Board is of the view that the additional 10x uncertainty factor is not justified.** It therefore recommends that PMRA consider an adjustment factor other than the additional 10x maximum default. In this regard, the Board notes that clear no effect levels were derived for critical outcomes, and that the traditional paradigm for uncertainty (10x10) already takes into account both inter- and intra-species variability, and that additional uncertainty factors are generally reserved for endpoints that are not adequately addressed, either in terms of severity or nature of the endpoint, by the traditional default paradigm described above.
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> 223. After considering the evidence and arguments submitted regarding toxicological endpoints and aggregation of dermal and inhalation exposure, the Board finds that a conclusion of common toxicological endpoints and aggregated exposure for both inhalation and dermal exposure, as concluded by PMRA, is not sufficiently supported by the evidence and available data.[8]
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> [Emphasis added]

27. The Review Board's conclusions speak for themselves. They identify serious flaws in both the process and science engaged in the PMRA's Special Review. The Review Board's mandate, however, was limited to hearing Chemtura's grievances and rendering its reasoned conclusions. It had no power to compel the PMRA to apply its findings. Rather, it could only recommend that the PMRA consider its findings and conclusions. As discussed below, the PMRA to this day has not fully applied or accepted the Review Board's findings.[9]

B. The Current Re-Evaluation: Business as Usual for the PMRA

28. The PMRA's re-evaluation process following the Review Board's recommendations has simply been a continuation of the status quo.

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[8] Exhibit A-4 to Chemtura's Memorial.

[9] Second Thomson Statement at para. 82.

29. The PMRA has gone to great lengths to create the appearance of consulting Chemtura, primarily to bolster its position in this arbitration, but all of the PMRA's conclusions on lindane had already been made and were not susceptible to genuine consultation.[10]

30. Tellingly, the internal documents leading up to the announcement of the latest re-evaluation make several references to this then-pending arbitration and the need to bolster Canada's position in this arbitration.

31. For example, a briefing note prepared by the coordinator of the PMRA's Re-evaluation, dated August 31, 2006, indicates that U.S. registrants had requested cancellations of their U.S. registrations for lindane products.[11] This note states:

> The PMRA has consulted with the Trade Law Bureau and legal council to assess the impact that 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 Canada is to complete the assessment of lindane. This would clarify/substantiate the position taken by the PMRA in 2001 and support the government's position in court.
>
> It was also recommended that the PMRA be as transparent as possible and communicate promptly any progress, changes in expedited deadline, etc. Clarity, transparency would be supportive of government's position in the Federal and NAFTA Courts.[12]

32. The recommendation that the PMRA be as transparent as possible is, again, for the purpose of this arbitration, rather than for the sake of genuine transparency. By implication, clarity and transparency were not, absent this legal advice, routine aspects of PMRA's manner of proceeding.

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[10] Second Thomson Statement at para. 84.

[11] Second Thomson Statement at para. 85.

[12] Affidavit of John Worgan, dated October 10 2008 ("Worgan Affidavit"), Exhibit JW-61.

33. Indeed, the PMRA's actions since 2005 have all been designed to bolster Canada's position in this arbitration. In a January 12, 2006 Memorandum to the Associate Deputy Minister of Health, the senior staff of PMRA, including Mr. Worgan, stated:

> The timing and substance of Health Canada's response to the Board's report could have an impact on the NAFTA claim by strengthening Canada's argument that Crompton has not been denied due process.
>
> [...]
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> With a view to strengthening Canada's defence to Crompton's NAFTA Claim and mitigating potential damages, the Justice Trade Law Bureau has urged Health Canada to provide an early, positive response to the Board Report by directing the PMRA (a) to adopt the Board's recommendation regarding the occupational risk assessment and (b) to resume and complete the Special Review of lindane in as open and transparent manner as reasonably possible. By doing so, this will greatly strengthen Canada's argument that, at the end of the day, Crompton Corporation has not been denied "due process", an element essential to Crompton's claim under Article 1105.[13]

34. When Canada attempts to defend the propriety of its current re-evaluation, the foregoing makes clear the lens through which this conduct must be assessed.

35. Not surprisingly, given the history, the PMRA's current re-evaluation appears poised to find that lindane is not acceptable for registration.

36. Setting aside Chemtura's disagreement with the PMRA's substantive findings in its current re-evaluation, which Chemtura communicated to the PRMA in response to its draft Re-Evaluation Note ("REN"), the re-evaluation process has been seriously tainted due to the continued participation of the same key individuals who were involved in the Special Review and who have been called as witnesses adverse in interest to Chemtura in this arbitration. As the saying goes, *plus ça change, plus c'est pareil.*

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[13] Investor Reply Exhibit 1.

37. Indeed, the re-evaluation process has been tainted from the very beginning, as is evidenced by the chronology of events since the Lindane Review Board rendered its report. Mr. Worgan's involvement in the re-evaluation process is particularly troubling in view of his key role in the Special Review and in providing evidence in this arbitration.[14]

38. The actions of the PMRA and Mr. Worgan in this latest re-evaluation have been as follows. On February 28, 2006, approximately six months following issuance of the Review Board's report, Mr. Worgan wrote to all former Lindane registrants announcing the re-start of a Lindane review.[15] In this letter, he requested copies of specific toxicological studies that the PMRA lacked in their database. Interestingly, the initial review had been completed without consideration of these studies. Interested parties were given 60 days to provide any data that they wished to be considered in this review.[16]

39. Most registrants requested an extension of the deadline for submission of relevant data and a new deadline of July 31, 2006 was approved by the PMRA at the end of April 2006.[17]

40. Copies of toxicology studies, new labels and use mitigations and rebuttals to problems with exposure study were supplied by Chemtura by the end of July 2006.[18]

41. As Chemtura had an on-going worker exposure study in progress to support a future registration application for its Ipconazole seed treatment product, Chemtura

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[14] Second Thomson Statement at para. 86.

[15] Investor Reply Exhibit 2.

[16] Second Thomson Statement at para. 87.

[17] Second Thomson Statement at para. 88.

[18] Second Thomson Statement at para. 89.

asked the PMRA if they would be interested in reviewing the study. In October 2006, the PMRA replied that they would only consider reviewing this data if Chemtura officially requested a delay in the re-evaluation, which Chemtura did.[19]

42. On April 29, 2008, Mr. Worgan wrote to Chemtura, enclosing the Draft REN.[20] Registrants were provided with a 60 day period for comment.[21]

43. On June 27, 2008, Chemtura provided comments to the PMRA and requested a meeting to discuss its concerns with the issues they had raised.[22]

44. One and half months later, on August 6, 2008, Mr. Worgan replied in writing to the concerns Chemtura had raised regarding the working exposure study.[23] As other technical issues raised by Chemtura had yet to be reviewed by the PMRA, Mr. Worgan requested that a meeting be delayed until this review had been completed.[24]

45. Another month passed and, on September 16, 2008, Chemtura again requested a meeting with the PMRA to discuss the issues relating to the PMRA's interpretation of the worker exposure study, noting that "we do not believe we have had the opportunity to adequately discuss the arguments we have presented".[25]

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[19] Second Thomson Statement at para. 90.

[20] Investor Reply Exhibit 3.

[21] Second Thomson Statement at para. 91.

[22] Second Thomson Statement at para. 92 and Investor Reply Exhibit 4.

[23] Investor Reply Exhibit 5.

[24] Second Thomson Statement at para. 93.

[25] Second Thomson Statement at para. 94 and Investor Reply Exhibit 6.

46. On September 30, 2008, Mr. Worgan replied in writing with a detailed response to the issues raised in Chemtura's June 27, 2008 letter and requested that Chemtura reconsider its request for a meeting in light of his response.[26]

47. On November 3, 2008, Chemtura wrote to Mr. Worgan confirming that a meeting was still necessary to discus the PMRA's re-assessment.[27]

48. On November 26, 2008, Mr. Worgan wrote detailing the topics that the PMRA was willing to discuss and proposed several dates for a meeting in Ottawa.[28]

49. A meeting with PMRA staff finally took place in Ottawa on January 20, 2009. Mr. Worgan led the meeting with several the PMRA scientific staff in attendance.

50. Mr. Worgan issued minutes of the meeting on January 30, 2009 and Chemtura provided the PMRA with its own summary on February 13, 2009.[29] The PMRA provided certain clarifications in respect of the points Chemtura raised in the minutes of the meeting through a letter from Mr. Worgan on March 6, 2009.[30]

51. Chemtura responded to the March 6, 2009 letter on April 14, 2009, again asking for specific guidance in addressing the PMRA's stated concerns and noting that "we … are concerned that we have not yet received a response to some of the basic questions we have posed".[31]

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[26] Second Thomson Statement at para. 95 and Investor Reply Exhibit 7.

[27] Second Thomson Statement at para. 96 and Investor Reply Exhibit 8.

[28] Second Thomson Statement at para. 97 and Investor Reply Exhibit 9.

[29] Second Thomson Statement at para. 98 and Investor Reply Exhibit 10.

[30] Second Thomson Statement at para. 99 and Investor Reply Exhibit 11.

[31] Second Thomson Statement at para. 100 and Investor Reply Exhibit 12.

52. Mr. Worgan replied on May 7, 2009, cutting off the consultation process and advising Chemtura to make any future comments in a public forum.[32]

53. John Worgan has played the lead role in Chemtura's discussions with the PMRA; Chemtura has had no direct contact with any other PMRA staff with the sole exception of the January 20, 2009 meeting and correspondence with administrative staff.[33]

54. While preparing evidence for Canada to the effect that he believed the Special Review was properly conducted and its conclusions on lindane were correct, Mr. Worgan has been responsible for the PMRA's current re-evaluation of lindane to determine whether it is acceptable for registration. It would strain credulity to say that Mr. Worgan approached the current re-evaluation with an open mind. Mr. Worgan is both an administrative decision-marker in a regulatory matter with significant financial consequences for Chemtura, while testifying against Chemtura and supporting a party adverse in interest to Chemtura in this arbitration. In both capacities, he is dealing with the same subject matter. It is beyond doubt that Mr. Worgan has placed himself in an irreconcilable conflict of interest. Given that, Chemtura considers that his evidence is of little or no value.

55. It has been abundantly apparent in all of Chemtura's discussions with the PMRA that the Agency determined that lindane use is not acceptable and Chemtura's concerns, whether right or wrong, will not change the outcome and that therefore there is no value in discussing the matter.[34]

56. The PMRA, and Mr. Worgan, are intent on justifying the conduct and conclusions of the PMRA's Special Review. The PMRA's position on lindane has not

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[32] Second Thomson Statement at para. 101 and Investor Reply Exhibit 13.

[33] Second Thomson Statement at para. 102.

[34] Second Thomson Statement at para. 102.

changed since 2001 and all of the "consultation" since 2006 has been window dressing on the path to confirming the PMRA's earlier decision and in support of Canada's position in this arbitration. Canada is methodically, if slowly, working toward a complete and unequivocal ban of lindane.

57. At this juncture, it is worth briefly addressing the Costa Report.

58. Canada appears to have introduced the Costa Report in the hope that this Tribunal will re-consider the conclusions of the Lindane Board of Review which determined that the PMRA's Special Review was heavily flawed in both its process and science.

59. Dr. Costa's discussion of the Special Review and the Review Board's conclusions is yet another attempt by Canada to distract the Tribunal from the issues before it. With respect, these matters have already been considered and decided by an independent expert scientific panel. The view of that panel should be respected and preferred to any contrary position provided years later in the context of an adversarial proceeding. Unlike Canada, Chemtura has excerpted the Review Board's findings at length. Those findings stand on their own. As a general comment, if the Review Board's conclusions had been so favourable to the PMRA as Dr. Costa claims, then there would not have been a need for a re-evaluation. Instead, the PMRA has spent the past four years attempting (at least superficially) to conduct a re-evaluation in accordance with the numerous recommendations of the Review Board.

60. Dr. Costa also attempts to justify the PMRA's current re-assessment. That re-assessment is on-going. It will now be moving to a public consultation process. It is highly inappropriate for Canada to have taken the PMRA's draft REN, handed it to an expert and asked him to sing its praises, while the PMRA is (at least theoretically) in the midst of an on-going, not-yet complete re-assessment process.

II. The PMRA's Approach To Its Mandate Was Deficient And Self-Serving

61. Before turning in greater detail to the scientific points made by Canada, it is important to address Canada's overall message that the PMRA was an effective, thorough and diligent regulator.

62. The Report of the Lindane Review Board makes clear that this independent panel found that the PMRA acted improperly in a number of ways. This is not, however, the only independent body to have observed the conduct of the PMRA and found it to be seriously lacking.

63. The Commissioner of the Environment and Sustainable Development is mandated, on behalf of the Auditor General of Canada, to provide Canada's Parliament with objective, independent analysis and recommendations on the federal government's efforts to protect the environment and foster sustainable development.

64. In its 2003 Report to the House of Commons in respect of the PMRA's management of the safety and availability of pesticides, the Commissioner rendered the following conclusions:

> 1.1 The range of weaknesses we identified raises serious questions about the overall management of the health and environmental risks associated with pesticides.
>
> 1.2 For example, the Agency needs to use up-to-date evaluation methods; ensure that it has adequate information to complete the evaluations; carefully test its assumptions, especially about user behaviours; and consistently apply its procedures and policies. In particular, we are concerned about the heavy and repeated use of temporary and emergency registrations.
>
> [...]
>
> 1.39 We are concerned that incomplete and potentially unreliable information resulting in temporary registrations may increase the risks to Canadians and their environment. Inadequate information also means that evaluation decisions are more subjective and may rely on assumptions and non-scientific considerations, such as the Agency's perception of the need for the product.

Key assumptions are not tested and some are not correct

1.40 **Effects of assumptions not analyzed**. Agency evaluators must make a series of assumptions to link the laboratory studies they receive to the possible impacts of the pesticide's use. Such assumptions include how large a crop area will be treated, how much treated food Canadians will eat, and how the pesticide will be applied. These assumptions are often conservative - they tend to overestimate the risks. However, despite the uncertainties in all of the different assumptions evaluators make, we found that they have not determined how reliable their predictions of the risks are. For example, evaluators have not tried systematically altering their assumptions slightly to see if that would reverse the decision to approve a pesticide.

[...]

The Agency does not consistently apply its evaluation framework

1.46 Steps are not always followed. Although the Agency's process for evaluating pesticides is well defined, its staff do not always follow the required steps. We reviewed files on 30 recent submissions. They included those that were processed most quickly and those that took the longest to process. We found that in more than half, evaluators expedited the submission, skipped screening steps, cut the scientific review short, or skipped the public consultation stage. While we recognize that any evaluation process needs some flexibility, we are concerned that there are no clear criteria for these decisions to alter the normal process. In addition, some of these files lacked documentation of senior management's approval to exclude required steps. Besides the inconsistent treatment of submissions in such cases, steps skipped could mean health or environmental risks were not considered fully.

1.47 In one case, to meet demands for alternatives to pressure treated wood, the scientific review stage of the submission was completed in 17 calendar days rather than the 550 days the Agency would normally have allowed. During this stage, the Agency was supposed to evaluate at least 75 different scientific studies related to this product, weigh their results, and determine whether the risks were acceptable. In this case, screening was skipped, the scientific review was incomplete, and the product was issued a temporary registration.

[...]

1.56 **Progress depends on U.S. efforts and priorities**. The Agency had decided to rely very heavily on U.S. re-evaluations. This decision offers advantages because the U.S. has devoted significantly more resources to re-evaluations that Canada, but the Agency's success in meeting its re-evaluation deadlines depends on the U.S. regulator's meeting its own deadlines.

[...]

> 1.58. **Basic management tools not used.** We are also concerned that the Agency is not using basic management tools to guide its re-evaluation. For example:
>
> [...]
>
> We were surprised that the Agency had not screened pesticides to determine its priorities for re-evaluation. We would expect its priorities to reflect, among others, the pesticides used most heavily in Canadian agriculture and those that posed the highest risks to health and the environment (Exhibit 1.8). In our view, this is a necessary step to ensure that the Agency allocates its limited resources appropriately.
>
> [...]
>
> 1.70 **Joint reviews are not achieving planned gains.** The Agency and its U.S. counterpart can share the work of evaluating pesticides because they use similar evaluation processes. Joint reviews with the U.S. began in 1996, and other benefits such as reduced trade irritants. They were also expected to make evaluations faster and less costly. In practice, joint reviews are not faster for the Canadian evaluators. We noted that the Agency has had problems co-ordinating priorities and schedules with the U.S. evaluators. It does not know if joint reviews have saved it money because it does not track or estimate its costs or level of effort by submission.[35]
>
> [Emphasis added]

65. Several observations by the Commissioner in respect of the PMRA's conduct are particularly apposite in this case:

- The PMRA's evaluation methods are inadequate, and "inconsistently applied";
- The PMRA's evaluation decisions are often based on "inadequate information" resulting in decisions that are "subjective" and formed on the basis of "assumptions" and "non-scientific considerations";
- The PMRA's assumptions are often "conservative" and tend to "over estimate risks";

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[35] Investor Reply Exhibit 14.

- The PMRA does not carefully test its assumptions;
- The PMRA does not consistently apply its procedures and policies; and
- The PMRA has not screened pesticides in order to objectively determine priorities for re-evaluation.

66. These "weaknesses" in the PMRA's exercise of its mandate, which gave rise to "serious questions" about the PMRA's overall regulation of pesticides, can be seen throughout the process that led to the destruction of Chemtura's lindane product business in Canada:

- the PMRA's decisions regarding lindane for use on canola were driven by trade, political and international factors, not based on science;
- in its Special Review, the PMRA greatly overestimated the occupational exposure risks of lindane;
- there was no genuine public consultation in the Special Review process;
- the PMRA significantly postponed the conclusion of the Special Review based on the justification that it was awaiting the EPA's assessments;
- the PMRA then disregarded those assessments and thereby defeated any Canada-U.S. prospects for harmonization with respect to lindane; and
- in the case of Helix, in order to meet the demand for an alternative to lindane, the PMRA cut corners and conducted an incomplete scientific review, and granted Helix a temporary registration, notwithstanding the numerous deficiencies in the registration application.

III. This Dispute in Context

A. Facts and myths about lindane

67. Canada states that there was a growing international movement to ban lindane in the late 1990s.[36] However, it is important to understand certain key facts about lindane.

1) Lindane is not the same as "HCH"

68. Hexachlorocyclohexane ("HCH") is a chemical constituted of several different isomers.[37] An email from the PMRA to the U.S. Environmental Protection Agency (the "EPA") indicates that mixed isomers of HCH were approved for use in Canada until 1976.[38]

69. Commercial technical grade lindane is a 99.5% pure gamma isomer of HCH. The alpha and beta isomers of HCH have been directly linked with severe adverse ecological and physiological effects. The gamma isomer does not exhibit these severe adverse effects.[39]

70. However, the usage for many decades of HCH resulted in the fact that alpha and beta isomers of HCH have persisted and are found in the environment (e.g. in certain Northern regions). There were high usage levels of HCH in Russia, China and India for many years. When these countries stopped using HCH, the levels of HCH found in the Arctic began to decline.[40]

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[36] See Canada's Counter-Memorial at paras. 24-33.

[37] Second Thomson Statement at para. 7

[38] Investor Reply Exhibit 15.

[39] Second Thomson Statement at para. 8.

[40] Second Thomson Statement at para. 9.

71. In 1997, the technical grade lindane used in all of Chemtura's seed treatment products had a purity of 99.5%. A study conducted under good laboratory practices and provided to the PMRA at the time, confirmed the level of purity in five batches of material representative of the product used at that time.[41]

72. Many regulators, as well as NGOs, have confused lindane with HCH in their reference to these products. As a result, the adverse effects associated with the alpha and beta isomers have often been attributed to lindane.[42] This confusion regarding the use of the terms HCH and lindane is confirmed by a Canadian position paper prepared in connection with the negotiations with respect to a Protocol on persistent organic pollutants (the "Aarhus Protocol") to the Convention on Long-Range Trans-boundary Air Pollution (the "Stockholm Convention"), in which Canada took the following position: "We support attempts to distinguish very clearly between 'lindane' and 'Technical HCH'. It would be preferable that controls on the use of Technical HCH *not* be included indirectly as a sub-condition pertaining to lindane. This simply furthers the confusion around the use of the term 'lindane'."[43]

2) **The international restrictions are political, not scientific**

73. Canada relies heavily on the results of the 1997 Canadian Arctic Contaminants Report in support of its position that there were increasing international concerns about lindane which were the basis of the PMRA's initiation of the Special Review.[44]

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[41] Second Thomson Statement at para. 10 and Investor Reply Exhibit 16.

[42] Second Thomson Statement at para. 12. It is important in this regard that generalizations of the nature made by Dr. Costa at the beginning of his report ("General Considerations on lindane (y-HCH)") be avoided.

[43] Second Thomson Statement at para. 11 and Investor Reply Exhibit 17.

[44] See, eg. Canada's Counter-Memorial at para. 40.

74. However, the Report's conclusions related to HCH, not specifically to lindane. HCH levels in the environment were also found to be *decreasing* from 1978 to 1991, and no measurements were available in northern Canadian indigenous populations to asses the level of concern.[45]

75. Moreover, subsequent to the release of that report, Canada advocated for the continued use of lindane as a seed treatment in the Aarhus Protocol negotiations.[46] This point is discussed further below.

76. Canada also makes the bald statement that countries around the world have begun to progressively restrict and even ban the manufacture, use and sale of lindane.[47]

77. Canada neglects to mention, however, that lindane has only been used on a large scale in a small number of countries, including Canada. Its superior efficacy vis-à-vis other products is most pronounced for use in the control of insects detrimental to canola. That is not to say that it is not an effective product on other crops; rather, lindane used as an insecticide seed treatment on canola has simply been so much more effective than other competing products that its greatest value was perceived to be in the canola market.[48]

78. In the vast majority of countries where canola is a minor or non-existent crop – and therefore lindane use is minor – regulators have no reason to permit the use of lindane. A lindane ban in these countries must therefore be seen for what it really

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[45] See Affidavit of Cheryl Chaffey, dated October 14, 2008 ("Chaffey Affidavit") at para. 46.

[46] Second Thomson Statement at para. 14.

[47] See Canada's Counter-Memorial at paras. 34-42.

[48] Second Thomson Statement at para. 16.

is: good politics for a regulator or government to be seen to be banning pesticides particularly where there is no economic downside.[49]

3) The PMRA's attempt to regulate foreign production is outside its mandate, and in any event misguided

79. Canada asserts that "when not disposed of in secure sites, waste alpha-and beta-HCH generated in lindane production travels through the atmosphere to the north. In other words, use of lindane in Canada and the U.S. entails the eventual accumulation of HCH isomers in Northern Canada and Alaska,"[50] (note the conflation of "use of lindane" and "accumulation of HCH isomers").

80. Canada makes such statements in an attempt to portray the PMRA's actions as motivated by the protection of Canadian health and the environment. However, these statements are both flawed and irrelevant for several reasons.

81. *First*, Chemtura has demonstrated that its lindane source recycled the alpha and beta isomers generated in the production of lindane into other products and therefore did not result in the release of those isomers into the environment. EPA was satisfied with the information with which it was provided in this regard.[51]

82. *Second*, Canada's stated conclusion above does not follow from the first sentence. If alpha and beta isomers are disposed of in secure sites, then the use of lindane will not entail the accumulation of those isomers in Northern Canada. As noted, Chemtura's source of lindane did not involve disposal of the alpha and beta isomers, in any event, these isomers were recycled into other products.[52]

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[49] Second Thomson Statement at para. 17.

[50] See Canada's Counter-Memorial at para. 33 (emphasis added).

[51] Second Thomson Statement at para. 20. See also Second Johnson Statement, at para. 10.

[52] Second Thomson Statement at para. 21.

83. *Third*, even if the production of lindane in a foreign country resulted in the release of alpha and beta isomers, this is not a basis for the PMRA, as the regulator of the sale, use or importation of "control products", *i.e.* pesticides, to ban the product, as the PMRA's jurisdiction is limited to Canada.[53]

4) Canada defended the seed treatment uses of lindane in the late 1990s

84. Canada makes the argument that evidence was mounting against lindane use in the late 1990s. Yet, Canada advocated and defended the use of lindane as a seed treatment in the negotiations leading to the 1998 Aarhus Protocol.[54]

85. Canada maintained this position even after the release of the Canadian Arctic Contaminants Agreement Report in 1997.[55]

86. Canada has produced a document titled "Draft Briefing on Technical HCH for the UNECE LRTAP POPs Protocol." This document appears to have been produced in late 1997. In that document, Canada states:

> The Canadian negotiating position on lindane (>99% gamma-HCH) is that Canada does not agree with its inclusion in the initial list.
>
> [...]
>
> Any restriction on the production of Technical HCH must nevertheless allow continued production for use as an intermediate in the manufacture of other substances (e.g. lindane.)
>
> [...][56]

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[53] Second Thomson Statement at para. 22. See also *Pesticides Control Products Regulations*, C.R.C., c. 1253 ("PCPR"), S.6, Exhibit A-2 to Chemtura's Memorial.

[54] Second Thomson Statement at para. 23.

[55] Second Thomson Statement at para. 24.

[56] Investor Reply Exhibit 17.

87. This position can be found in other government documents as well. In an internal email dated June 3, 1997, Suzanne Fortin states: "Canada does not agree to including lindane in the [POPs] protocol. There is consensus on this position in the interdepartmental CORE POPs group."[57]

88. This was confirmed in the December 1997 Canadian Briefing Note on Lindane for the Negotiation of the UNECE LRTAP POPs Protocol, as well as other documents in 1997.[58] In the Lindane Note, [59] the following justification was provided for Canada's position:

> Canada's position in October was that lindane can be included in the protocol **if the existing uses are reflected.** This is the **compromise** reached in Canada, and it still holds. In effect, this is consistent with the positions put forth by other countries (e.g. UK and USA) whose proposed text for the restricted uses of lindane reflects current uses in their respective countries.
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> [Emphasis in original]

89. In a Briefing Note for a December 3-4, 1997 meeting of the "NAFTA TWG on Pesticides Executive Board," Mary Jane Kelleher of the PMRA stated that seed treatment and soil treatment uses of lindane were "not considered [to be] major contributors to long range transport."[60]

90. In the same briefing note, Ms. Kelleher explained that there was strong international concern about some of the minor uses for lindane, namely tree plantations, lawn use, indoor and outdoor use for nursery stock and ornamentals, and that Canada was "isolated" in supporting the continuation of those uses. The

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[57] Second Thomson Statement at para. 26; Investor Reply Exhibit 18.

[58] Second Thomson Statement at para. 27; Investor Reply Exhibits 19 to 22.

[59] Investor Reply Exhibit 19.

[60] Second Thomson Statement at para. 28 and Investor Reply Exhibit 23.

Note stated that by law, Canada would not agree to the phase-out of those minor uses without voluntary action.[61] The Note goes on to state:

> Canada may be viewed as acting inconsistently in its chemicals management objectives, and in its international positions, by requesting that other countries phase out the of substances found in the Canadian Arctic but already discontinued from use in Canada, while being alone in rejecting a proposal to phase out some minor uses of one of the most highly concentrated Arctic pollutants.
>
> NAFTA countries should be very cautious about giving sufficient attention to lindane and the short-term and longer-term positions we communicate to the international community.[62]

91. In other words, Canada was motivated to make sacrifices with respect to lindane in order to encourage other countries to discontinue other products.[63]

92. The outcome of the Aarhus Protocol at that time was that seed treatment uses of lindane were permitted to continue. In short, there was no ban of lindane, and all of the uses relevant to this arbitration were permitted to continue following the entering into force of the Aarhus Protocol.[64]

93. These 1997 documents regarding the POPs Protocol make it clear that the PMRA was prepared to support and defend the seed treatment uses of lindane. However, one year later, the PMRA was actively working toward the de-registration of lindane. The only intervening event at this time was the trade irritant issue with the U.S.

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[61] Second Thomson Statement at para. 29.

[62] Investor Reply Exhibit 23.

[63] Second Thomson Statement at para. 30.

[64] Second Thomson Statement at para. 31.

B. The Investor and its Investment have a long-standing presence in the Canadian pesticides market

94. Canada has made repeated references to suggest that Chemtura was and is one of the largest pesticides manufacturers in the U.S. Chemtura has operated in Canada for decades and had an expectation that its lindane investment would be treated fairly and subject to the normal regulatory process.

95. Although Chemtura is a large company, the crop protection business was at the relevant times and is approximately [***] of sales of the company. Companies such as Dupont, Dow, Rohn & Haas, FMC, Monsanto, Bayer, BASF, and Sygenta are all much larger companies in terms of crop protection products.[65]

96. Crompton Canada's predecessor, Naugatuck Chemicals Ltd., was formed in 1941 with the establishment of production facilities in Elmira Ontario. Agricultural chemicals were first produced by the company in 1944 and this was the start of the Crop Protection business.[66]

97. A Research Facility was opened in Guelph, Ontario in 1943. The discovery of Carboxin (Vitavax) by Guelph Scientists in 1963 eventually led to the development of a Seed Treatment Business in Canada. Vitavax was the first systemic fungicide for seed treatment use.[67]

98. During the 1970's and 1980's the Seed Treatment Business in Canada grew with the introduction of new products for use on all the major crops in Canada. By the late 1980's, the Seed Treatment Business represented over 80% of the sales for the Crop Protection division in Canada.[68]

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[65] Second Thomson Statement at para. 32.

[66] Second Thomson Statement at para. 33.

[67] Second Thomson Statement at para. 34.

[68] Second Thomson Statement at para. 35.

99. Chemtura has never been a major player in the traditional Agricultural Chemical market in Canada, which is dominated by herbicide products for major row crops.[69] The company's early entry into the Seed Treatment market with Vitavax gave it a strong position in this market but this was (and is) a small part of the overall industry.[70]

C. The Investor held the largest stake by far in the Canadian canola seed treatment market

100. The Canadian market for lindane treated canola seed was substantial at the relevant time, *i.e.* 1997-1998.[71]

101. While it is true that there were four Canadian registrants of lindane products, they were not all similarly situated, nor were they similarly affected by the PMRA's forced withdrawal and eventual de-registration.[72]

102. Chemtura held the lion's share of the market for lindane based canola seed treatments in Canada, approximately [***], with [***] shared between the other three registrants. This is relevant for two reasons.[73]

103. *First,* Chemtura had the most to lose by the PMRA's actions and therefore was most concerned about ensuring that its rights and interests were protected. It was therefore perfectly legitimate for Chemtura to continue to negotiate with the PMRA throughout 1998 and 1999 to ensure that Chemtura had appropriate

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[69] Investor Reply Exhibit 24.

[70] Second Thomson Statement at paras. 36 and 37.

[71] Second Thomson Statement at para. 38.

[72] Second Thomson Statement at para. 39.

[73] Second Thomson Statement at para. 40.

assurances with respect to the review of lindane by the PMRA and with respect to the registration of lindane replacement products.[74]

104. *Second*, the canola crop in Canada was and is very large and by removing lindane products from the market, the other three registrants had the opportunity to displace Chemtura as the market leader in seed treatment products for use on canola. Indeed, Syngenta had the most to gain from the removal of lindane, as it was preparing the introduction of its product Helix.[75]

105. It is inaccurate for Ms. Sexsmith to state at paragraph 34 of her Affidavit that the decision by IPCO to voluntarily withdraw lindane use on canola "had a particularly strong financial impact on IPCO as (unlike the Investor) it had no other replacement product to propose." Ms. Sexsmith's statement is inaccurate because IPCO's participation in this part of the market was minimal. The impact on IPCO, as compared to the impact on Chemtura, would have been trivial.[76]

106. The "equality" with which registrants were purportedly treated by the PMRA in the withdrawal of lindane must be considered in this context. Such "equality" would only be meaningful as amongst equally situated competitors, which the registrants were manifestly not.

IV. The "Voluntary" Withdrawal Was a Forced Withdrawal of the Investor's Lindane Product Registrations in Everything but Name

A. Developments in the US

107. Canada makes reference to the fact that it was a Gustafson, Incorporated ("Gustafson U.S.") letter that may have prompted the EPA to adopt a stricter

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[74] Second Thomson Statement at para. 41.

[75] Second Thomson Statement at para. 42.

[76] Second Thomson Statement at para. 43.

stance with respect to lindane-treated canola seeds from Canada.[77] Therefore, according to Canada, Chemtura was the author of its own misfortune.

108. However, Gustafson U.S. operated independently of Chemtura. Indeed, if this were not the case, there is no logical reason why Chemtura would have permitted Gustafson U.S, to write that letter to the EPA. Some significant portion of the lindane-treated seed from Canada being imported into the U.S. was presumably treated with Chemtura's lindane products.[78]

109. Gustafson U.S. was acquired by Uniroyal in 1984. At that time, Gustafson U.S. was a major customer for Uniroyal's Vitavax, a seed treatment fungicide. New chemistry was coming into the market at that time, notably Bayer's Baytan, and Uniroyal was concerned that Gustafson U.S. would switch from Vitavax to Baytan, hence the acquisition. Gustafson U.S. at the time of the acquisition, was a privately-owned company with its own management and infrastructure.[79] The management was interested in preserving its independence from Uniroyal after the acquisition. Gustafson U.S.'s old-guard management argued that it would be unable to attract chemistry from other companies if those companies viewed it as giving preferential treatment to its parent company's competing seed treatment chemistry. As a result, Uniroyal allowed Gustafson U.S. to operate independently of Uniroyal.[80]

110. Gustafson U.S. had its own president and vice presidents, its own sales force, R&D department, etc. The connection to Uniroyal was limited to sending it a monthly earnings statement, monthly forecasts and an annual budget. It did not

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[77] See Canada's Counter-Memorial at para. 59.

[78] Second Thomson Statement at para. 45.

[79] Investor Reply Exhibit 25.

[80] Second Thomson Statement at para. 46.

participate in monthly business reviews that Uniroyal's CEO held with all other businesses of the company. The president of Gustafson U.S. reported to Uniroyal's CEO and later to an executive vice president not involved with Chemtura's crop protection business. The main link between the Crop Protection business was the sale of seed treatment chemicals to Gustafson U.S., which was an arms-length transaction with prices negotiated annually.[81]

111. It is also important to bear in mind that the issues in 1997 and 1998 were focussed on lindane-treated canola seed for planting, rather than canola seed for crushing or canola oil. It is estimated that canola seeds exported to the United States represented [***] of the total seed harvested in Canada during this period.[82] Of this, just over [***] would be seed that was treated.[83] Exports of canola seed for planting from Canada to the U.S. were, therefore, fairly minor and there would have been minimal impact on the Canadian canola industry if these exports had been banned.[84]

112. The EPA's March 12, 1998 letter clearly states that[85]:

> As of June 1, 1998, EPA will ask U.S. Customs to regard shipments of canola seeds that have been treated with a non-U.S. registered pesticide as shipments of an unregistered pesticide under FIFRA. FIFRA violations involving sale and distribution of the treated seed for planting within the United States will be handled under existing enforcement response policies after June 1, 1998.[86]

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[81] Second Thomson Statement at para. 47.

[82] Second Thomson Statement at para. 48 and Investor Reply Exhibit 26.

[83] Second Thomson Statement at para. 48 and Investor Reply Exhibit 27, (an estimate prepared by Bill Hallatt).

[84] Second Thomson Statement at para. 48.

[85] Second Thomson Statement at para. 49.

[86] Exhibit B-4 to the Confidential Statement of Evidence of Alfred F. Ingulli, dated May 30, 2008 ("First Ingulli Statement").

[Emphasis added]

113. With respect to seeds for crushing or processing, the EPA stated[87]:

> This FIFRA decision addresses seeds that are imported for planting purposes. It does not affect imported or domestic canola seed intended for crushing or processing in U.S. processing facilitates, or canola oil or meal for the U.S. market. As you know, the Federal Food, Drug and Cosmetic Act governs residues of pesticides in the seeds intended for crushing, either domestic or imported. EPA has consulted with the Food and Drug Administration and believes that the likelihood of harmful residues resulting from this season's use would be exceedingly small. Nevertheless, EPA urges growers if at all possible to plant only seed treated with U.S. registered pesticides.[88]

[Emphasis added]

114. An internal email circulated by Janet Taylor a couple of months later, dated June 2, 1998, confirms that EPA's sole concern was treated canola seed for planting[89]:

> I had a call from EPA looking for a contact in the canola seed (for planting) industry. They indicated that they were concerned about the possible export into the USA from Canada of lindane treated seed. Lindane is not registered for this use in the USA. EPA seemed to feel they could deal with this directly with the treatment plants.[90]

115. Further, there is nothing in EPA's November 23, 1998 letter which indicates that it was threatening a ban on the importation of Canadian canola oil or canola seed for crushing or canola meal.[91]

116. Canada makes frequent reference in its submissions to an "imminent ban" by the U.S. of lindane-treated canola seeds; and frequently implies that this ban would

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[87] Second Thomson Statement at para. 50.

[88] Exhibit B-4 to the First Ingulli Statement.

[89] Second Thomson Statement at para.51.

[90] Investor Reply Exhibit 28.

[91] Second Thomson Statement at para. 52 and Exhibit B-9 to First Ingulli Statement.

have applied to not only seeds for planting, but also canola oil and meal and seeds for crushing.

117. However, Canada has provided no documents to demonstrate communication between the PMRA and EPA which would indicate that the PMRA was ever told by EPA that it would ban Canadian canola products grown from lindane-treated seed.

118. Canada states at paragraph 81 of its Counter-Memorial that "the EPA was willing to tolerate a phase-out." However, Canada has provided no evidence in support of this being communicated by EPA to the PMRA.

119. In an email from Ms. Sexsmith to PMRA staff, dated October 1, 1998, Ms. Sexsmith describes her communications with EPA, stating: "Issues include mixed signals from EPA regarding registering new products while eliminating old products ... . Issue has been raised to EPA; response that I got was that is not the intent. We will have to be sure that we also are not 'registering' new products containing lindane." [92]

120. Of course, at the time Ms. Sexsmith made this statement, the PMRA would have had no basis to refuse to register a product containing lindane. However, the Special Review, which commenced a few short months later, gave the PMRA convenient cover to do exactly that.

B. The trade irritant issue in perspective

121. At the time that the lindane issue began receiving attention, there were many products used on Canadian canola that were not registered in the USA. This is still true to this day. Nevertheless, lindane was the *only* product targeted for border action. In fact, the fungicides (Vitavax, Thiram, Iprodione) in the "lindane

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[92] Investor Reply Exhibit 29.

free" products approved by the PMRA were not registered for use on canola in the United States at the time.[93]

122. Canada's view on the threat of border closure in respect of lindane treated canola seed, as a pretext to restrict market access, can be plainly seen in the email of Marvin Hildebrand of Canada's Department of Foreign Affairs and International Trade, dated June 28, 1999, in respect of another threat by North Dakota concerning a different pesticide.[94] Mr. Hildebrand stated:

> [...]
>
> 4. Current ND threats to restrict market access are not unlike those made pertaining to Lindane in early 1998. They appear to reflect the absence of established U.S. Maximum Residue Limits, and to ignore the obligation to adopt an international MRL (e.g. CODEX) in the absence of a national one. They also continue to point to the need for a longer-term solution to this situation, i.e. using the lack of MRLs for pesticide residues on agriculture products as a pretext to (threaten to) restrict Cdn access to the U.S. market.[95]
>
> [Emphasis added]

123. The use of other non-U.S.-registered products on Canadian canola has not occasioned the threat of a border closure against Canadian canola. All things being equal, and in view of the fears fuelled by the PMRA and the CCC in the period 1998 through 2002 in respect of lindane, the Canadian canola industry and the PMRA should be concerned with border closure or demanding that action be taken in respect of these other products.[96]

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[93] Second Thomson Statement at para. 53.

[94] Second Thomson Statement at para. 54.

[95] Investor Reply Exhibit 30.

[96] Second Thomson Statement at para. 55.

124. Needless to say, this is not occurring. There is no threat of a ban of these products, nor is there a phase-out of such products. Lindane was singled out for trade reasons.[97] The trade issue was used as a reason to target lindane.

C. The PMRA was not a mere facilitator in the withdrawal of the Investor's lindane product registrations

125. Canada repeatedly asserts that the PMRA was a mere facilitator of the CWA. However, the evidence demonstrates that this is not the case. The PMRA was a driver of the withdrawal process.[98] The PMRA and the CCC set the terms of the forced withdrawal, in accordance with the "truce" the PMRA had struck with EPA.[99]

126. The PMRA, as Canada's pesticides regulator, was the lead party in the CWA. It was the PMRA's agreement to the relevant terms that was key to Chemtura and the other registrants. The CCC had no power or authority to agree to anything vis-à-vis Chemtura's lindane product registrations.[100]

127. Several internal PMRA communications demonstrate that the PMRA considered itself to be the vanguard in negotiating and concluding the CWA. An internal email from Ms. Sexsmith, dated 9 April 1998, states in respect of the CWA: "I am now going to try to sell this to EPA, with go ahead from Tony [Zatylny], as a way to stop the fuss."[101]

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[97] Second Thomson Statement at para. 56.

[98] Second Confidential Statement of Evidence of Alfred Ingulli, dated May 15, 2009, at para. 6 ("Second Ingulli Statement").

[99] Canada's Counter-Memorial at para. 119.

[100] Second Ingulli Statement at para. 7.

[101] Second Ingulli Statement at para. 8 and Investor Reply Exhibit 31.

128. Another internal PMRA email, dated October 2, 1998, further establishes that Ms. Sexsmith was the primary contact for EPA and the growers:[102]

> Please find attached an update on the proposed lindane agreement between EPA and PMRA. I have also attached a table with the lindane flea beetle seed treatments (products/registrants). Wireworms are not included in this proposal.....they are just part of the table. Please note Roy is contact for registrants; I remain contact for EPA and growers. Draft letter is in progress. **Key issues are priority work for formulation changes when they come in and hold on current submissions containing lindane**. This is still a work in progress.
>
> [Emphasis in original]

129. A one-page "Lindane Seed Treatment/update", dated October 2, 1998, prepared by the PMRA and faxed to EPA clearly shows that the PMRA was actively involved in orchestrating the forced withdrawal.[103] The update listed "Next steps for PMRA internal use", identifying the following active steps to be taken by the PMRA:

- Proposal is acceptable to ERPA OPP and EPA regions
- Canola Council and canola growers very supportive
- If registrants commit to provide submissions for formulation changes for the lindane canola seed treatments, PMRA will commit to short time lines for registering the formulation changes
- PMRA will hold on any decisions regarding current submissions (lindane containing products) in queue
- Draft letter has gone to EPA; comments back are being considered internally; draft press release and qs and as have also gone to EPA for comment; list of Canadian stakeholders has been compiled; Canola Council; CSTA, FPT, AAFC, DFAIT, CFIA; EC; DIAND; need list from EPA.

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[102] Second Ingulli Statement at para. 9 and Investor Reply Exhibit 32.

[103] Second Ingulli Statement at para. 10 and Investor Reply Exhibit 33.

- Roy Lidstone is faxing registrants today indicating that he is the contact point for the lindane canola seed treatment formulation change issue.

- Wendy Sexsmith is contact point with Canola Council, and EPA.

130. Communications directly between Chemtura and the PMRA further demonstrate the leading role occupied by the PMRA in the CWA process[104]:

- October 28, 1998 letter from Chemtura to the PMRA[105];
- December 17, 1998 letter from Chemtura to the PMRA;[106]
- January 5, 1999 telephone call from Ms. Sexsmith to Chemtura Canada;[107]
- January 11, 1999 letter from Chemtura to the PMRA;[108]
- February 9, 1999 letter from the PMRA to Chemtura;[109]
- March 2, 1999 letter from Chemtura to the PMRA;[110]
- March 25, 1999 letter from the PMRA to Chemtura;[111]
- April 29, 1999 letter from Chemtura to the PMRA;[112]
- May 11, 1999 meeting between Chemtura and the PMRA;[113]

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[104] Second Ingulli Statement at para. 11.

[105] Exhibit WS-15 to the Sexsmith Affidavit.

[106] Exhibit B14 to the First Ingulli Sttaement.

[107] Sexsmith Affidavit at para. 57.

[108] Exhibit B22 to the First Ingulli Statement.

[109] Exhibit B15 to the First Ingulli Statement.

[110] Exhibit B16 to the First Ingulli Statement.

[111] Exhibit B17 to the First Ingulli Statement.

[112] Exhibit WS-35 to the Sexsmith Affidavit.

[113] First Thomson Statement at para. 55.

- June 24, 1999 industry meeting, attended by Ms. Sexsmith and representatives of Gustafson and Chemtura Canada;[114]
- October 1, 1999 letter from Chemtura to the PMRA;[115]
- October 8, 1999 letter from Chemtura to the PMRA;[116]
- October 15, 1999 letter from the PMRA to Chemtura;[117]
- October 18, 1999 letter from Chemtura to the PMRA;[118]
- October 21, 1999 letter from the PMRA to Chemtura;[119]
- October 22, 1999 conference call between the PMRA and the 4 registrants;[120]
- October 26, 1999 letter from Chemtura to the PMRA;[121]
- October 27, 1999 letter from Chemtura to the PMRA;[122] and
- October 28, 1999 letter from the PMRA to Chemtura.[123]

131. It is clear that the PMRA was an active participant throughout the forced withdrawal and much more than a mere facilitator.

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[114] Sexsmith Affidavit at para. 73.

[115] Exhibit B18 to the First Ingulli Statement..

[116] Exhibit B19 to the First Ingulli Statement.

[117] Exhibit WS-36 to the Sexsmith Affidavit.

[118] Exhibit WS-37 to the Sexsmith Affidavit.

[119] Exhibit B23 to the First Ingulli Statement.

[120] Sexsmith Affidavit at para. 95.

[121] Exhibit WS-39 to the Sexsmith Affidavit.

[122] Exhibit B20 to the First Ingulli Statement.

[123] Exhibit B21 to the First Ingulli Statement.

D. The PMRA was improperly collaborating with the CCC and the CCGA to the detriment of registrants

132. Within the context of pesticides management and regulation, the PMRA's principal responsibilities with respect to registered products are to the registrants.[124] Yet the PMRA and the CCC and CCGA, two agricultural industry associations, were in constant private communication in the relevant period to define and dictate (or attempt to dictate) the terms of the forced withdrawal to registrants.[125]

133. Examples of this improper collaboration include[126]:

- Following the announcement of the EPA's position on the import prohibition of lindane-treated canola seeds for planting, the PMRA, the CCC and CCGA met and spoke on multiple occasions to discuss the "voluntary" discontinuance by registrants of the sale of lindane-based canola seed treatment products and use of lindane-treated canola seed;[127]

- The PMRA, the CCC and the CCGA agreed on the structure for the withdrawal of lindane products for canola use on November 24, 1998, almost one year before the PMRA concluded a withdrawal agreement with Chemtura

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[124] The *Pest Control Products Act*, R.S.C 1985, c. P-9 ("PCPA"), Exhibit A-1 to Chemtura's Memorial, and PCPR define the relationship between the regulator, the PMRA, and the regulated applicants/registrants, in respect of control products. The legislative scheme does not contemplate the involvement of third parties alien to this relationship, such as industry associations, in the management of pesticides or pesticides safety.

[125] Second Ingulli Statement at para. 13.

[126] Second Ingulli Statement at para. 14.

[127] Canada's Counter-Memorial at paras. 79, 80, 82 and 88.

and other registrants, and only one year later than Canada's defence of the continuance of canola seed treatment in international meetings;[128]

- The PMRA contacted the CCC following the November 24, 1998 meeting and a subsequent December 17, 1998 letter from Chemtura to the PMRA, to discuss how to deal with Chemtura and, in particular, how to impose their withdrawal terms on Chemtura;[129]

- The CCGA forwarded a draft press release regarding the forced withdrawal to Wendy Sexsmith, who revised the press release and returned a marked-up version to Mr. Zatylny;[130]

- The CCC, CCGA and the PMRA corresponded in connection with the registration of lindane replacement products, the CCC lobbying in favour of the fast track registration of replacements.[131]

134. Canada relies heavily on the terms discussed during the November 24, 1998 meeting among registrants, the PMRA, the CCC and CCGA in support of its theory that an agreement was reached that day in connection with the withdrawal of lindane. Setting aside the fact that the evidence does not bear this out, it appears to ignore the fact that it would have been highly improper for the PMRA to have permitted parties alien to the pesticides regulatory regime, *i.e.* the CCC

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[128] Canada's Counter-Memorial at paras. 96 and 103. The agreement was recorded in a November 26, 1998 letter from Gene Dextrase, President, CCGA, and Bruce Dalgarno, Past President, CCGA, to Dr. Claire Franklin, Executive Director, PMRA. Exhibit B-12 to the First Ingulli Statement. Registrants were not even copied on this letter.

[129] Canada's Counter-Memorial at para. 115.

[130] Investor Reply Exhibit 34.

[131] Canada's Counter-Memorial at paras. 121-122, 128-129.

and CCGA, to co-author the CWA. This would, in effect, amount to the delegation of its statutory obligations to private parties.[132]

135. Canada claims that the Canadian canola growers were concerned about the alleged environmental or health issues associated with lindane.[133] In fact, the evidence is clear that the grower's real interest was in the trade issue and Canada/U.S. harmonization. The evidence in respect of the CCC's position demonstrates that the CCC (and its industry constituents) were fully prepared to use lindane, provided that there was no trade concern because of its low cost and excellent efficacy.[134]

136. In a January 18, 2001 email, Ms. Buth stated:

> Wendy Sexsmith has informed me that the review of Lindane has been pushed back and the report/decision will not be made until September, 2001. I suspect that the delay may be due to EPA's workload. We had hoped to have a decision by now. If the decision was positive for both Canada and the U.S. it would give the manufacturers enough time to gear up production for the 2002 season.[135]

137. Further, in a November 2001 letter, Ms. Buth confirmed that she did not have any health concerns regarding lindane use on canola, referring to the absence of residues in oil and meal and the EPA's finding that there were no dietary risk concerns.[136]

138. Clearly, canola growers were prepared to resume lindane use on canola subject only to resolution of the trade irritant issues.

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[132] Second Ingulli Statement at para. 15.

[133] See Canada's Counter-Memorial at fn. 79.

[134] Second Ingulli Statement at para. 16.

[135] Investor Reply Exhibit 35.

[136] Second Ingulli Statement at para. 18 and Investor Reply Exhibit 36.

E. The withdrawal agreement was not finalized until October 1999

139. Chemtura did not agree in November 1998 to the withdrawal of lindane. An agreement on withdrawal was reached by Chemtura and the PMRA only in October 1999.[137]

140. Canada repeatedly points to the November 1998 letter from the CCGA as evidence of a binding agreement. Neither the CCC nor the CCGA had the authority to agree to anything vis-à-vis Chemtura's lindane registrations. Only the PMRA had authority with respect to Chemtura's registrations, therefore it was with the PMRA that Chemtura negotiated. It was from the PMRA that Chemtura sought and obtained commitments.[138]

141. Moreover, Chemtura's representative at that meeting, Rob Dupree, was a relatively low level employee in the company and did not have the authority to agree to the CWA, which would have resulted in the loss of a highly profitable product. The lindane matter was of such importance to the company that it rose to the level of the CEO. Chemtura's position in this regard was clear throughout its discussions with the PMRA.[139]

142. Chemtura was not required to keep the CCC or the CCGA informed as to Chemtura's position on the withdrawal, although as a practical matter both Chemtura and the canola industry associations had some interest in keeping abreast of the other's position and activities on the lindane matter.[140]

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[137] Second Ingulli Statement at para. 20.

[138] Second Ingulli Statement at para. 21.

[139] Second Ingulli Statement at para. 22.

[140] Second Ingulli Statement at para. 23.

143. It was not until the PMRA confirmed its commitments on October 27, 1999 that an agreement was reached.[141] Indeed, Ms. Sexsmith writes in an internal email dated September 10, 1999 about the upcoming October 5 meeting with registrants: "The point to the meeting is to get final agreement ..."[142]

144. Canada also states that "[a]s the PMRA had repeatedly noted, it could only agree to implement the VWA if the agreement was universally adopted by the 4 registrants, on identical terms."[143]

145. This, of course, is not true. The PMRA could do anything it wanted to do within the scope of its mandate. More importantly, the PMRA itself stated that unanimous agreement was not required.[144] In an internal document, the PMRA stated in reference to a 1998 Gustafson press release:

> [...]
>
> **Point #11** is incorrect. PMRA has not made unanimous agreement among all registrants a condition to agreeing to the voluntary removal of lindane.][145]

146. The notion that every registrant was required to agree on identical terms is clearly incorrect. No detailed agreement at all was necessary for registrants to remove canola from their lindane labels. A simple request to the PMRA would have accomplished that. The only discretion that the PMRA had in the matter was determining the phase-out period. Each registrant could have acted without an

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[141] Second Ingulli Statement at para. 24.

[142] Investor Reply Exhibit 37.

[143] Canada's Counter-Memorial at para. 163

[144] Second Ingulli Statement at para. 26.

[145] Investor Reply Exhibit 38.

industry-wide agreement, and more importantly could alternatively have negotiated its own voluntary withdrawal with different terms and conditions.[146]

147. In fact, this is exactly what happened in the case of the lindane registration withdrawal for non-canola crops. All registrants that agreed to the PMRA imposed withdrawal were given a phase out period while Chemtura, who did not agree, was not given a phase out. Why then would unanimous agreement have been needed for canola but not needed for the other crops?[147]

148. Ms. Sexsmith attempts to portray Mr. Ingulli's correspondence in October 1999 as seeking a commitment that the PMRA re-instate lindane for use on canola if the EPA issued a tolerance, even if the PMRA reached a negative conclusion about lindane in its Special Review.[148]

149. This is completely inaccurate. *First*, this situation was motivated by a trade concern, not a risk concern. As a result, Chemtura was seeking a commitment that the PMRA re-instate lindane for use on canola if the EPA issued a tolerance prior to the PMRA completing its Special Review.[149] The tolerance would have eliminated the trade concern.

150. *Second,* Chemtura was concerned that the PMRA might not complete an objective and proper scientific review in a timely manner. Chemtura therefore spelled out the terms under which its lindane registrations would be reinstated, envisioning two potential trigger points, namely, a tolerance issued by EPA in the United

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[146] Second Ingulli Statement at para. 27.

[147] Second Ingulli Statement at para. 28.

[148] Sexsmith Affidavit at paras. 92-93.

[149] Second Ingulli Statement at para. 30.

States or a positive outcome of the Special Review. This was reflected in the fourth condition of the CWA:[150]

> In the event that PMRA determines that 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 of products and uses of lindane on canola that were voluntarily withdrawn. PMRA agrees to grant such reinstatement within 30 days after Uniroyal's application for reinstatement and payment of a fee of $154.00, without any other pre-conditions, including the possibility that PMRA has not completed its re-evaluation of lindane prior to EPA issuing a canola tolerance or an exemption from tolerance. Thereafter, Uniroyal reserves the right to recommence production of its lindane-containing product for use on canola/rapeseed in Canada and/or USA.

151. It was Chemtura's full expectation that an objective Special Review, even a delayed one, would be positive, based on the data available on lindane. Ten years later, with no such objective review having been completed, it is apparent that Chemtura's concerns about a timely review were well-founded.[151]

152. After reaching a withdrawal agreement, the PMRA thereafter breached all of the critical commitments it had made to Chemtura.

V. Canada Failed to Act in accordance with the Agreement and its own Regulatory Regime

A. The PMRA authorized the entire industry to act in contravention of the PMRA 's governing legislation

153. With respect to the negotiations on-going in the fall of 1999, Canada states: "Notwithstanding the inappropriateness of the Investor's demands, the PMRA

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[150] Second Ingulli Statement at para. 31.

[151] Second Ingulli Statement at para. 32.

simply restated what was possible within its statutory and regulatory framework...".[152]

154. Yet, the PMRA's conduct throughout this matter demonstrates that the PMRA did not consider itself bound in any way by its statutory or regulatory framework. It is only when it suits Canada and the PMRA that the statutory and regulatory framework is held up as a restraint on its conduct.[153]

155. For example, Section 20 of the PCPR provided that the Minister could cancel or suspend a registration for certain reasons:

> The Minister may, on such terms and conditions, if any, as he may specify, cancel or suspend the registration of a control product when, based on current information available to him, the safety of the control product or its merit or value for its intended purposes is no longer acceptable to him.[154]
>
> [Emphasis added.]

156. Alternatively, a registrant could voluntarily request the discontinuation of a sale of a registered product under Section 16 of the PCPR:

> Where the registrant intends to discontinue the sale of a control product, he shall so inform the Minister and the registration of that control product shall, on such terms and conditions, if any, as the Minister may specify, be continued to allow any stocks of the control product to be substantially exhausted through sales.[155]

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[152] Canada's Counter-Memorial at para. 164.

[153] Second Ingulli Statement at para. 35.

[154] Exhibit A-3 to Investor's Memorial.

[155] Exhibit A-3.

157. There was no provision in the PCPA or PCPR for the forced withdrawal of the registration of a control product, nor did the Minister have unfettered authority to cancel or suspend control product registrations.[156]

158. In fact, there was no statutory authority for the PMRA – or the Minister – to undertake the course of action it did in connection with the CWA.

B. The PMRA misinformed the public about the terms of the withdrawal agreement

159. The PMRA not only participated in but indeed engineered an industry-wide violation of the PCPA. Canada politely terms this as the Minister "exercising his discretion" not to enforce the PCPA. In fact, the PMRA acted in complete disregard of its statutory mandate, until the July 1, 2001 date was approaching, and then decided to strictly enforce its mandate.[157]

160. The PMRA's claim that it was always reasonable in its conduct of the lindane withdrawal negotiations and implementation, including allowing for use during the 2002 season, rings hollow. It was only after allowing chaos and confusion to reign for the entire 2001 treating and planting season did the PMRA finally make a decision in early 2002 to allow treated seed to be used in the 2002 planting season. The decision was communicated through CCC in March 2002 and officially published by the PMRA on April 5, 2002.[158]

161. Canada reproduces the notes of JoAnne Buth from the November 22, 2000 meeting between the PMRA and canola industry.[159] Following a description of the potential enforcement action and penalties to be taken against growers, Ms.

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[156] Second Ingulli Statement at para. 36.

[157] Second Ingulli Statement at para. 38.

[158] Second Ingulli Statement at para. 39 and Investor Reply Exhibits 39 and 40.

[159] Canada's Counter-Memorial at para. 198.

Buth describes her "impression" that the PMRA would not be taking aggressive enforcement action. She states, however, that if the PMRA were asked to confirm this in writing now, they would likely respond by saying that all stocks must be used by July 1, 2001.[160] It was certainly the impression of the seed treaters that the PMRA would be enforcing the July 1, 2001 deadline.[161]

162. Indeed, it is easy to see how the PMRA's position could be viewed as threatening enforcement action. For years, the PMRA had made it clear that it was prepared to ignore, and to encourage industry to act in violation of, the PMRA's own governing legislation, as described above.[162]

163. As a result, the PMRA's repeated references to its enforcement authority and obligations presented a marked contrast to its past conduct and was interpreted by industry as a sudden shift toward strict enforcement.[163]

164. The PMRA's response to industry on June 15, 2001 by way of an "Update on the Lindane Voluntary Agreement" was simply more of the same.[164] The text of the update is reproduced below:

> Recent events in the marketplace appear to have created uncertainty and raised questions as to whether the terms of the voluntary agreement concerning the withdrawal of the canola/rapeseed use from the lindane based seed treatment products have changed. The PMRA has received requests for clarification of that matter and has determined that the response should be shared with all of the interested parties who may have the same uncertainty.

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[160] Second Ingulli Statement at para. 40.

[161] Investor Reply Exhibit 41.

[162] Second Ingulli Statement at para. 41.

[163] Second Ingulli Statement at para. 42.

[164] Second Ingulli Statement at para. 43.

> The first question relates, in particular, to the terms of the voluntary agreement that the sale of the lindane products for use on canola/rapeseed and the use of the lindane treated canola seed are to end by July 1, 2001. The voluntary agreement has not changed in this regard.
>
> The second question was whether the use of lindane based seed treatment products on canola/rapeseed has been reinstated in any of the registrations from which it was removed through an application to amend a registration or notice of discontinuation of sales, in accordance with the terms of the voluntary withdrawal agreement. The answer is "No". The conditions stipulated for such reinstatement in connection with the voluntary withdrawal agreement have not yet materialized. Accordingly, none of the cancelled uses on canola/rapeseed has been restored.
>
> This update will confirm that the voluntary agreement has not been changed in regards to these questions or in any other respect."
>
> PMRA, June 15, 2001[165]

165. Canada states that the PMRA, "from a health and environmental perspective", would have been interested in allowing treated seed to be planted rather than destroyed as toxic waste.[166] However, any such interest would have been just as true in March 2001 as it was in March 2002. The PMRA dragged its heels and forced the industry to wait through a year of uncertainty.[167]

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[165] Investor Reply Exhibit 42.

[166] Canada's Counter-Memorial at para. 203.

[167] Second Ingulli Statement at para. 44.

C. The PMRA discriminated against the Investor in the registration of replacement products

1) The Investor's Gaucho 480 FL and 75 ST were never intended to replace its Lindane Products[168]

166. Canada attempts to soften the full measure of the PMRA's actions on Chemtura vis-à-vis the registration of replacement products by asserting that Chemtura had "a first-to-the-market advantage of over one year" before Helix was registered.[169] In support of this position Canada states that Gaucho 480 FL and Gaucho 75 ST, Chemtura products, were the only Canadian-registered alternative to lindane from October 1999 to November 2000.

167. This is based on a false assumption about the commercial viability and suitability of Gaucho 480 and Gaucho 75ST in the Canadian seed treatment market.[170]

168. These products were registered partly because, under the right conditions, they would have been used by some customers. In particular, because of the formulation types and composition, the products would only be a commercial

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[168] At various parts of Canada's Counter-Memorial, including paragraphs 274-275, Canada seeks to confuse the issue by reference to "Gaucho" and Helix, and by making statements about the registrations granted to "Gaucho." However, in certain instances, Canada is, in fact, referring to Gaucho 75 ST or Gaucho 480 FL, but not to Gaucho CS FL. Indeed, in some cases they are referring to the registration of Gaucho 75 ST that was granted prior to the CWA. The relevant comparisons were between Helix/Helix XTra and Gaucho CS FL. These were the competing all-in-one products, which were the true lindane replacement products. Second Confidential Statement of Evidence of John Kibbee, dated May 15, 2009 ("Second Kibbee Statement") at para. 18, n. 10.

[169] Canada's Counter-Memorial at para. 252.

[170] Second Kibbee Statement at para. 7.

opportunity in the absence of any all-in-one, ready-to-use combination fungicide plus insecticide in the market.[171]

169. In essence, Gaucho 480 FL and Gaucho 75 ST were stopgap products put into the market while Chemtura was working on its intended competitive product, Gaucho CS FL, in order that canola growers would at least have something to use to control flea beetles.[172]

170. For the spring 2000 season, lindane was still in use. Due to the much lower cost of lindane, Gaucho 480 and Gaucho 75ST were not competitive products. And with a registration approval of October 1999, it would be very difficult to achieve significant market share due to the lead time required for securing raw materials, scheduling into production and filling the supply chain. Treating decisions for the following spring are made prior to this. In addition, Gustafson had significant inventories of lindane product to use up or face disposal.[173]

171. Canada's submission that Chemtura was also "well-placed" to offer a replacement product for lindane for export to the US market[174] is also incorrect. Chemtura was faced with the fact that it had no fungicides that were approved for canola seed treatments both in Canada and the United States.[175] In any event, when these products were offered to the market, there was no commercial uptake since it appeared a resolution to the lindane trade issue was in the works. Lindane

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[171] Second Kibbee Statement at para. 8. Gaucho 75 ST was an insecticide-only powdered formulation rather than a liquid product, and therefore required the additional step of mixing with water prior to application. Gaucho 480 FL was a flowable (liquid), insecticide-only. *Ibid.* at n. 14

[172] Second Kibbee Statement at para. 9.

[173] Second Kibbee Statement at para. 10.

[174] Canada's Counter-Memorial at para. 245.

[175] Investor Reply Exhibit 47.

replacement products only became commercially viable after lindane registrations on canola were cancelled. [176]

172. The Gaucho 480 FL and Gaucho 75 ST products were also registered partly to expedite the registration of future products (such as Gaucho CS FL), so that the future products could be submitted with a shorter expected time frame for review (i.e. Category C rather than Category A). This, of course, did not occur due to the PMRA's foot-dragging in conducting the Gaucho CS FL review.[177]

2) Helix and the NAFTA joint review process

173. At around the time that the PMRA took action against lindane, it was also championing the new joint review process between the PMRA and EPA.[178]

174. It was apparent that the PMRA had additional political motivations to ban lindane-based products and register Helix in their place through the new joint review process.[179] The PMRA's action against lindane was very helpful in its pursuit of the joint review process.

175. In a November 18, 1998 letter from Dr. Franklin of the PMRA to Ms. Marcia Mulkey of EPA, titled "Harmonization – Raising the Bar", Dr. Franklin described at length her and the PMRA's interest in jointly reviewing Helix with the EPA.[180] Given the extent to which the PMRA was willing to provide preferential treatment to Helix, it is worth reading most of the letter:

[...]

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[176] Second Kibbee Statement at para. 11.

[177] Second Kibbee Statement at para.12.

[178] Second Kibbee Statement at para. 13.

[179] Second Kibbee Statement at para. 14.

[180] Second Kibbee Statement at para. 15.

The Novartis seed dressing Helix (which is an alternative for lindane in Canola) and the associated OP replacement opportunities around the new insecticide active ingredient thiamethoxam, which is a component of Helix, represents the next level of advancement.

You are probably aware that our respective staffs have been meeting with Novartis US and Canadian representatives over several months. The cooperative outcome has been harmonized submissions in both countries covering:

- Helix™ as a lindane replacement for Canola.

- thiamethozam as an OP replacement for a wide range of agricultural uses as well as turf/nursery applications.

There has been a great deal of consultation and planning invested in this initiative.

The objective is harmonized registration decisions for Helix™ and thiamethozam in a timely fashion, i.e., December 1999/January 2000. Clearly, this is an ambitious objective with tremendous positive potential which merits our full support.

A key element is the work sharing arrangement and schedule being negotiated between our respective teams (see tables attached). We expect to receive shortly additional names and confirmation of the EPA review team plus their immediate supervisors. I believe it will be essential, Marcia, that you and I ensure that these responsibilities are recognized and accepted by evaluators and their supervisors. Unless you and I are personally willing to visibly support this special initiative, it is unlikely to succeed.

In addition to alleviating trade issues focusing on canola/lindane, this example also services as a model for growth/strengthening our harmonization/efficiency initiatives via JR/work sharing. It also represents a golden opportunity to respond to the commitment made in Lynn Goldman's letter to Mr. Scher regarding increased emphasis on harmonization to reduce trade irritants.

You will note the ambitious target time frame of 12 months. The division of labour, reflecting discussion among our respective staffs to maximize efficiency and play to our current strengths, has been proposed as follows:

- EPA does Reduced Risk assessment plus all residue/metabolism reviews for the entire use pattern, i.e. Helix/Canola and the complete range of thiamethozam applications.

- PMRA does all screening plus all the tox, product chemistry, occupational/bystander exposure and product performance

> (efficacy/value) for the entire use pattern, i.e. Helix/Canola **and** the complete range of thiamethoxam applications.
>
> Viability of this time frame can be better measured by late December following screening to assess quality/completeness of the submission, including Tier II summaries of individual studies.
>
> If our Agencies are to deliver on the commitments outlined by Lynn, we will need to work together on this initiative and the principle it is illustrating, i.e. raising the bar on NAFTA **and** harmonization. There will be more growth opportunities in the future. I am convinced that we must seize each one of these opportunities to build and improve.[181]
>
> [Emphasis added]

176. The extent to which the PMRA was willing to add resources and make concessions to accommodate an expedited registration of Helix is abundantly clear.[182]

177. The extent to which the PMRA was willing to accommodate the occupational exposure issues with Helix, while terminating lindane registrations on that same basis, is nothing short of astounding. The Product Stewardship Program for Helix and Helix XTra, approved by the PMRA, shows the extent to which the PMRA was willing to be flexible in the case of Helix.[183]

178. The contrast between the expediency with which the PMRA conducted its review of Helix and the delay with which it conducted its review of Gaucho CS FL, as discussed in greater detail below, reveals a preference towards Helix that cannot be explained by any legitimate regulatory rationale.

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[181] Investor Reply Exhibit 43.

[182] Second Kibbee Statement at para. 16 and Investor Reply Exhibits 44 and 45.

[183] Second Kibbee Statement at para. 17 and Investor Reply Exhibit 45.

3) *The PMRA delayed registration of Gaucho CS FL while expediting registration of Helix*

179. Canada states that the PMRA had only agreed to fast-track lindane free products, and that it did not commit to expedite the review of all lindane replacement products.[184]

180. Ms. Sexsmith describes the commitment differently in her Affidavit, referring to the contents of the CCGA's November 26, 1998 letter:

> In other words, the commitment did not apply to the registration of new pesticides (such as the Claimant's Gaucho). It only applied to existing pest control formulations from which the chemical ingredient lindane had simply been removed.[185]

181. Canada also refers to a June 21, 2000 letter from Claire Franklin in which Dr. Franklin states that "the PMRA 'opened the door' for potential lindane replacements, for a short period of time."[186] According to Canada, Dr. Franklin referred in that letter to a prior letter, dated February 9, 1999, "which carefully reiterated the agreed terms of the VWA (and did not include any agreement to expedite the registration of replacement products,) and clarified that the PMRA and the EPA had committed to facilitate the registration of replacement products through joint review... ".[187]

182. Another document produced by Canada indicates, however, that the PMRA "would give priority to three submissions as long as they were reviewable (complete) – Helix, Gaucho and Zeneca."[188] (emphasis added)

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[184] Canada's Counter-Memorial at para. 262.

[185] Sexsmith Affidavit at para. 46.

[186] Canada's Counter-Memorial at para. 264.

[187] Canada's Counter-Memorial at para. 265.

[188] Investor Reply Exhibit 48.

183. It took considerable time for the PMRA and Chemtura to come to an agreement on whether or not Gaucho CS FL was a "lindane replacement product". Indeed, it took three months following Chemtura's request for a meeting in July 2000 to discuss the issue for the PMRA to hold a meeting (this was 105 days after Chemtura had submitted its registration application for Gaucho CS FL).[189] This is hardly the conduct one would expect from a regulatory body acting in the normal course where a major product is being withdrawn from the market without adequate replacement alternatives in place.[190]

184. Canada builds up the significance of this obligation by asserting that the review of lindane replacement products was a "bigger undertaking" than review of lindane-free products because it potentially involved the review of unregistered insecticide active ingredients.[191] While in certain instances this may be the case, imidacloprid (the insecticide active on which Gustafson's lindane replacement products were based) was not a "new" insecticide. It had been registered for several years as the active ingredient in Admire 240 for use on a variety of crops.[192]

185. In addition, Gaucho 75 ST was already registered for use on canola for export use. Review and approval of imidacloprid-based lindane replacement products was trivial in comparison to review and approval of Helix, which required approval of an entirely new insecticide, plus two new fungicides for canola (fludioxonil and difenoconazole).[193]

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[189] Second Kibbee Statement at para. 22 and Exhibit C-7 to the Confidential Statement of Evidence of Paul Thomson, dated 30 May 2008 ("First Thomson Statement").

[190] Second Kibbee Statement at para. 22.

[191] Canada's Counter-Memorial at para. 243.

[192] Second Kibbee Statement at para. 23; Investor Reply Exhibit 49.

[193] Second Kibbee Statement at para. 24.

186. Throughout its submission, Canada relies heavily on the CCGA's November 26, 1998 letter purporting to summarize the agreement of all stakeholders. In that letter, the CCGA states that the PMRA would "work with registrants to facilitate access to lindane replacement products." Canada's interpretation of this statement is apparently that the PMRA agreed to do nothing more than follow its normal registration process. However, if that were the case, the PMRA would have made no commitment at all and there would have been no point to a withdrawal agreement.[194]

187. The expedited registration of lindane-free products was addressed elsewhere in the CCGA's letter. The commitment to facilitate access to lindane replacement products clearly had to have meant something. It must have entailed some commitment to expedited registration (subject, as always, to the normal requirements for ensuring safety of the product). However, Canada's position (at certain points in its Counter-Memorial) appears to be that, notwithstanding the statement in the CCGA letter, PMRA made no commitment with respect to the registration of lindane replacement products.[195]

188. In summary, depending on which of Canada and/or the PMRA's statements one considers:

(a) the PMRA made no commitment to expedite the review of "all lindane replacement products" (presumably then, the PMRA would decide based on its own considerations which lindane replacement products would receive expedited review); or

(b) the PMRA made no commitment whatsoever with respect to lindane replacement products, according to Ms. Sexsmith; or

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[194] Second Kibbee Statement at para. 25.

[195] Second Kibbee Statement at para. 26.

(c) the PMRA would only facilitate the expedited registration of lindane replacement products through joint review with EPA; or

(d) the PMRA had "opened the door" to expedited negotiation of lindane replacement products for a "short period of time" which had never been communicated to industry, and which apparently concluded well over a year before the July 1, 2001 deadline.

189. This pattern of ambiguous, non-transparent and changing commitments is consistent with the PMRA's treatment of Chemtura throughout this process.

190. The PMRA seemed to believe that Chemtura was trying to undermine the political goal of removing lindane from the market, rather than attempting to receive reasonable and appropriate treatment in response to its cooperation and the financial loss that ensued.[196]

191. The meeting notes from the June 24, 1999 industry meeting clearly indicate that replacement products would only be given priority if they were "complete"..[197] However, based on the initial occupational exposure results for Helix the PMRA found that the occupational exposure assessment did not support registration. The PMRA concluded that a new exposure study was required and provided Syngenta with an exposure study protocol to follow.[198]

192. In other words, the PMRA found that the Helix submission was <u>not</u> complete. A worker exposure study is one of the most complex and involved studies in a submission, and indeed only very few of them exist, since a single exposure study is normally used in support of many different product submissions. Rather than

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[196] Second Kibbee Statement at para. 27.

[197] Investor Reply Exhibit 48.

[198] Second Kibbee Statement at para. 28.

concluding that Helix was not eligible for registration because the surrogate worker exposure study showed Helix to result in unsafe worker exposure (which had been the policy to date), and rather than terminating the priority status for Helix because of this, the PMRA instead gave Syngenta special treatment by allowing them to conduct a worker exposure study with Helix to overcome the failure to meet the established standard of being supportable by a surrogate study.[199]

193. Canada states that when, in the midst of the registration process the PMRA asked [***], the half-rate product had the same formulation as the first product and so, in essence, it could simply be submitted for registration along with [***].[200]

194. Canada claims that Chemtura's Gaucho 480 FL and Gaucho 75 ST registrations were also "tail-gated" in this fashion.[201] Although this was technically tailgating, the submission for Gaucho 75ST was accepted by the PMRA on October 21, 1999, and the Gaucho 480 FL submission was accepted on November 4, 1999, a few days later. This is not comparable to the Helix situation.[202]

195. Not only did the PMRA allow tailgating for Syngenta's Helix by permitting the submission of a new formulation with a new active ingredient rate about a year after the initial submission, but the PMRA actively requested the tailgate submission. Mr. Kibbee has indicated that he is not aware of a single other instance in which the PMRA directed a registrant to tailgate with a new

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[199] Second Kibbee Statement at para. 29 and Investor Reply Exhibit 25.

[200] Canada's Counter-Memorial at para. 258.

[201] Canada's Counter-Memorial at para. 249.

[202] Second Kibbee Statement at para. 31.

formulation. The registration of BASF's "Charter", a fungicide used on cereal crops, illustrates just how extraordinary this decision was.[203]

196. In that case, the PMRA deemed through the registration process that the rate was too high, and therefore registered only the half rate. Charter was a ready-to-use product that could not reasonably be applied at the half rate. BASF was stuck with the very unfavourable position of requiring users to dilute the product before use. This was inconvenient for the user for several reasons. The product could not be used to treat cold seed and, because the product was diluted, it did not apply enough color on its own, therefore a second container had to be used to provide additional dye for adequate seed coloration. This caused BASF substantial business loss.[204]

197. In the BASF case, the PMRA did not make any allowances for differences in opinion on the required rate. The fact that PMRA requested and allowed a new formulation from Syngenta in connection with Helix is a stunning example of how the PMRA accorded preferential treatment to Helix at the expense of other lindane replacement products.[205]

198. Chemtura's replacement product, Gaucho CS FL, which should have been considered on the same footing as Syngenta's Helix from the date of submission (*i.e.* March 21, 2000), was not only not expedited, but took longer to review than submissions in the normal course – 186 days over the standard timeline for regular non-expedited Class A reviews.[206]

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[203] Second Kibbee Statement at para. 32.

[204] Second Kibbee Statement at para. 33.

[205] Second Kibbee Statement at para. 34.

[206] Second Kibbee Statement at para. 35.

199. There were no significant deficiencies in Chemtura's submission that could justify the long delay to approve Gaucho CS FL. The deficiencies identified by Canada's witnesses[207] are, for the most part, trivial even on their face and were addressed in a timely way and remedied by Chemtura.[208]

200. Canada alleges that the PMRA was waiting for a response from Chemtura for 200 of the 848 days it took to approve Gaucho CS FL.[209] This statement is not substantiated, and in view of the nature of the deficiencies identified in Canada's submissions this seems highly unlikely. In any event, even if this were the case, it does not explain why the PMRA took 648 days to approve Gaucho CS FL, a product that Chemtura legitimately expected would be expedited in accordance with the terms of the CWA and which contained an already-registered insecticide.[210]

201. It took 848 days for Chemtura's product to be approved, a product containing an active ingredient already approved for use in food and for use on a canola for export. Helix, on the other hand, and its half-rate formula Helix XTra, were approved in 745 and 378 days respectively, notwithstanding that these products contained a new insecticide and two fungicides never before used on canola, and notwithstanding that the initial submission was withdrawn, a submission for a worker exposure study research permit was filed and approved, and a worker

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[207] Second Kibbee Statement at para. 36 and Exhibits SC-29 and SC-46 to the Chaffey Affidavit.

[208] Second Kibbee Statement at para. 36. Canada alleges at paragraph 272 of its Counter-memorial that the PMRA was waiting for a response from Chemtura for 200 of the 848 days it took to approve Gaucho CS FL.

[209] Canada's Counter-Memorial at para. 272.

[210] Second Kibbee Statement at para. 37.

exposure study was conducted, all of which submissions and studies would normally have been a multi-year process.[211]

D. The Investor rigorously pursued available domestic remedies

202. Canada's attempt to disparage Chemtura's pursuit of its legal remedies as "litigious behaviour" is telling of its general approach to this arbitration, that is to create distractions with irrelevant issues in order to avoid having to address the real issue: the failings in the PMRA's conduct.

203. The fact that Chemtura initiated certain proceedings before the Federal Court and thereafter discontinued those proceedings is not relevant to the issues in this arbitration. What is relevant is that those proceedings were initiated because of the PMRA's failure to take appropriate action when required to do so.

1) Chemtura was forced to seek recourse in the Federal Court to vindicate its rights

204. Chemtura filed an application for judicial review in the Federal Court on 4 April 2001, challenging the PMRA acts and refusal to act in respect of the terms and conditions of the CWA (T-585-01).[212] This application was prompted by Chemtura's informed belief that the PMRA had taken the position, contrary to the terms of the CWA, that lindane treated canola seed could not be sold or used after July 1, 2001, on penalty of substantial fines.[213]

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[211] Second Kibbee Statement at para. 38.

[212] Second Thomson Statement at para. 57 and Exhibits R-54 and R-71 to Canada's Federal Court Annexes.

[213] Second Thomson Statement at para. 57 and Exhibit R-55 to Canada's Federal Court Annexes.

205. Shortly thereafter, on June 21, 2001, Chemtura brought an application for judicial review of the May 29, 2001 decision denying Chemtura's request to reinstate canola uses on its lindane product registrations (T-1091-01).[214]

206. In December 2001, Chemtura brought two applications for judicial review of the November 1 and November 13, 2001 decisions, respectively, refusing Chemtura's requests to renew and amend certain lindane product registrations (T-2155-01 and T-1885-01).[215] These applications were both discontinued by consent as the PMRA effectively resolved the issue shortly following the filing of the applications.[216]

207. In March 2002, Chemtura brought three new judicial review applications in connection with the decisions to suspend Chemtura's non-canola uses lindane product registrations and to refuse to amend certain of those registrations (T-446-02, T-447-02, T-532-02).[217] These applications were consolidated on consent with the applications in T-585-01 and T-1091-01 on June 24, 2002,[218] and the consolidated application discontinued on October 3, 2006.[219] In view of the passage of time without the successful restoration of Chemtura's product registrations (the PMRA took another 3 years to issue a new draft evaluation of lindane even after publication of the Review Board's conclusions), the decision

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[214] Second Thomson Statement at para. 58 and Exhibit R-63 to Canada's Federal Court Annexes.

[215] Exhibits R-68 and R-70 to Canada's Federal Court Annexes.

[216] Second Thomson Statement at para. 59 and Exhibits R-72 and R-73 to Canada's Federal Court Annexes.

[217] Exhibits R-75, R-76, and R-77 to Canada's Federal Court Annexes.

[218] Exhibit R-85 to Canada's Federal Court Annexes.

[219] Exhibit R-122 to Canada's Federal Court Annexes.

was taken to concentrate Chemtura's efforts on its NAFTA claim and seek restitution through damages.[220]

208. Finally, Chemtura brought a judicial review application in October 2003 in connection the decision refusing to renew Chemtura's registration for lindane technical (T-1914-03).[221] This application was adjourned *sine die* by order of the Federal Court on May 6, 2003, on the condition that the parties provide the court with a report on the status of the process established by the PMRA to revisit its decision in relation to the registration of lindane, and was discontinued on September 27,2006.[222]

209. Each of these applications sought, among other things, orders in the nature of writs mandamus, compelling the PMRA to act consistently with its mandate. None of the applications could have resulted in a damages order. [223] Moreover, each application was necessary because, under Canadian administrative law, each government action, *i.e.* decision, must be challenged separately.

2) **Canada needlessly delayed appointment of the Board of Review, forcing the Investor to return to the Federal Court**

210. Canada claims that Chemtura was responsible for delays in constituting the Board of Review.[224] In reality, however, if Chemtura had not filed an application for a writ mandamus to force the Minister of Health to fulfill her statutory obligations, it was apparent the process either would have stalled or the same body that

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[220] Second Thomson Statement at para. 60.

[221] Second Thomson Statement at para. 61 and Exhibit R-103 to Canada's Federal Court Annexes. The decision in connection with Lindane Technical was also the subject of a request for a Board of Review.

[222] Second Thomson Statement at para. 61 and Exhibits R-119, R-120 and R-121 to Canada's Federal Court Annexes.

[223] Second Thomson Statement at para. 62.

[224] Canada's Counter-Memorial at paras. 373-76.

rendered the challenged decisions would have appointed the panel deciding the propriety of its conduct. Clearly, neither of these results would have been acceptable to Chemtura – or to any other registrant.[225]

211. As Mr. Ingulli described in his first Confidential Statement of Evidence, Chemtura submitted three separate requests for a Review Board to review the PMRA's various registration decisions.[226] After a month of deafening silence following the third request, Chemtura wrote to the Minister of Health advising her that if no action was taken, the company would have no other choice but to commence further legal proceedings in the Federal Court, seeking an order to compel the Minister to comply with her statutory obligations.[227] All told, it took three months from the date of the first request for the Minister of Health to respond, *i.e.* from February 18, 2002 to May 6, 2002.[228]

212. Chemtura received the Minister of Health's May 6, 2002 decision indicating the Minister's intention to forward Chemtura's request for hearings to the PMRA for "appropriate action" on May 13, 2002.[229] Having carefully considered the Minister's decision, Chemtura wrote to the Minister through counsel on June 3, 2002, questioning the Minister's apparent decision to delegate the appointment of the Review Board to the PMRA, and requesting clarification of the Minister's intention, failing which it would be forced to seek a ruling in the Federal Court.[230]

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[225] Second Thomson Statement at para. 63.

[226] See Exhibits B-71, B-72, and B-73 to the First Ingulli Statement.

[227] Investor Reply Exhibit 50.

[228] Second Thomson Statement at para. 64.

[229] Exhibit B-74 to the First Ingulli Statement.

[230] Exhibit B-75 to the First Ingulli Statement.

213. As counsel to Chemtura pointed out in its June 2, 2002 letter[231]:

> We are unclear as to the meaning or intent of your letter. It would appear that either you intend the PMRA to appoint the Board for the purpose of conducting the reviews contemplated by the Regulations or that you intend the PMRA itself to conduct the review. Either interpretation offends principles of fairness and reasonable administrative decision-making.
>
> [...]
>
> As you know, the PMRA made the decisions that are the subject of the requests for review. Dr. Franklin, and other members of the PMRA were personally and integrally involved in the matters.
>
> The appointment of a Review Board by the PMRA is contrary to the principles of natural justice. Putting this matter in the hands of the PMRA is an invalid sub-delegation of your statutory authorities and responsibilities. Any appointment of the PMRA nullifies the review process and the validity of the resulting Board. The appointment of any person by the PMRA in these circumstances may also be challenged on the basis that such an appointment gives rise to a reasonable apprehension of bias (or actual bias).[232]

214. As Chemtura received no response to its letter, it brought a judicial review application in Federal Court on June 12, 2002 (T-899-02). [233] This was the last day on which Chemtura could challenge the Minister's decision under Canadian law.

215. It took almost one year before the Federal Court could hear the application. Canada states that the Minister postponed the appointment of the Board of Review pending the Court's consideration of the case, implying that if Chemtura had not challenged its May 6, 2002, decision a Board would have been constituted

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[231] Second Thomson Statement at para. 65.

[232] Second Thomson Statement at para. 67 and Exhibit B-75 to the First Ingulli Statement. It is recalled that section 24 of the PCPR provided as follows: "Where the Minister receives an application for a hearing, he shall appoint a Review Board (hereinafter referred to as "the Board"), consisting of not less than three persons and shall refer the subject matter of the application to the Board."

[233] Exhibit R-84 to Canada's Federal Court Annexes.

sooner.[234] However, the Minister was under no obligation to suspend the fulfillment of her statutory duties during this period. Canada used the Court proceeding as a convenient excuse to further delay the appointment of the Review Board.

216. Had the Minister responded to Chemtura's June 2, 2002 letter confirming that the appointment of the Board members had not been improperly delegated to the PRMA, the Court proceeding would have been unnecessary. As noted in the June 2, 2002 letter, Chemtura's concern was not the PMRA's involvement in selecting Board member candidates, but rather the improper delegation of the power to appoint the ultimate Board.[235]

217. The hearing of the application took place on May 6, 2003, and, on that same day, Judge Gibson of the Federal Court made the following order[236]:

> FOLLOWING submissions on behalf of the Applicant and introductory submissions on behalf of the Respondent, at hearing this day, and following discussions among the Court and counsel at hearing this day:
>
> **THIS COURT ORDERS that:**
>
> The hearing of this application is adjourned sine die. This judge remains seized of this matter. By agreement among the Court and counsel, counsel will report in writing to this judge through the Registry of the court in Ottawa, by the close of business on Friday, the 16th of May 2003, on any progress toward settlement of the issue here, that is, the appointment of a Review Board under section 24 of the Pest Control Products Regulations in response to a letter of request on behalf of the Applicant dated the 18th of February 2002. If progress is reported, counsel should also identify a date by which a further report would be made.[237]

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[234] Second Thomson Statement at para. 68.

[235] Second Thomson Statement at para. 69.

[236] Second Thomson Statement at para. 70.

[237] Exhibit R-100 to Canada's Federal Court Annexes.

218. As is clear from the Order, the Court did not simply "adjourn[] the matter indefinitely",[238] but required Canada to provide regular reports on its progress in appointing the Review Board pursuant to the Regulations. It took another five months following issuance of the Court's Order for the Minister to appoint the Review Board.[239]

219. Chemtura was informed on October 22, 2003, almost two years after it made its original request for Review Board hearings, that a Review Board had been appointed to conduct the requested hearings.[240]

220. Shortly thereafter, Chemtura brought a motion to discontinue the June 12, 2002 application, explaining that "[s]ince the Respondent has appointed a Review Board as originally requested by the Applicant and the Applicant has been successful in obtaining the relief it sought in the application, the Applicant now wishes to discontinue this proceeding."[241] Chemtura further stated in its Notice of Motion that "[h]ad the Respondent established the Review Board as required under s. 24 of the Regulations when originally requested to do so by the Applicant, the Applicant would not have been required to bring this application."[242]

221. The motion was necessary because Chemtura sought further relief: namely, the payment of its costs. Contrary to the normal rule on a discontinuance that the discontinuing party is required to pay the costs of the opposing party, costs were sought by Chemtura because it was only as a result of Canada's delay that it was

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[238] Canada's Counter-Memorial at para. 375.

[239] Second Thomson Statement at para. 71.

[240] Second Thomson Statement at para. 72 and Exhibit R-104C to Canada's Federal Court Annexes

[241] Exhibit R-104B to Canada's Federal Court Annexes.

[242] *Ibid.*

forced to incur legal costs to seek an order compelling the Minister to fulfill its statutory duties.[243]

222. Chemtura was successful in its request and, on February 10, 2004, Canada consented to the requested discontinuance and agreed to pay forthwith $5,000 in solicitor's costs to Chemtura.[244]

223. It took almost two years from the date of Chemtura's request for a Review Board to be put in place. But for the Federal Court's intervention and supervision, it is unlikely that Chemtura would have prevailed in having a fair and independent Board established to review the PMRA's conduct and conclusions.

224. Canada's agreement to the payment of costs to Chemtura is, in essence, an admission that Canada's conduct was not in accordance with its obligations.

225. It is abundantly clear on the face of these Federal Court proceedings that Chemtura was forced at every step of the process to revert to the judiciary in order to compel the PMRA to conduct itself in accordance with its mandate and governing statute at significant cost to Chemtura. This is not illustrative of "litigious behaviour" on the part of Chemtura, but rather of the long history of obstructive and arbitrary behaviour on the part of the PMRA which has led to the present arbitration.[245]

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[243] Second Thomson Statement at para. 74.

[244] Second Thomson Statement at para. 75. Exhibits R-110 and R-111 to Canada's Federal Court Annexes.

[245] Second Thomson Statement, at para. 76.

VI. The PMRA's Special Review was Flawed and Scientifically Unsound: The "Demise of Lindane"

A. The Special Review process was chosen for a political purpose, not to satisfy health or environmental concerns

226. Canada asserts that the Special Review of lindane was prompted after a "long series of events in 1997 and 1998." This ignores the fact, however, that Canada had defended the seed treatment uses of lindane in the Aarhus Protocol as late as 1998. Indeed, Canada did not sign the Aarhus Protocol until June 1998, and did not ratify the Protocol until December 1998.[246]

227. Canada attempts to portray the Special Review as being driven by specific health and/or environmental concerns about lindane. It first describes how the PMRA's new policy in 1999 was to establish a program to review all "old" pesticides, including lindane.[247]

228. Canada next attempts to argue that because the lindane evaluation was a Special Review, prompted by specific concerns, that Review need not "necessarily entail a complete re-evaluation of a products' database".[248]

229. Canada then argues that, as a result of the number of pesticides requiring review and the PMRA's limited resources, the PMRA was entitled to focus on one area of concern, in this case, occupational exposure.[249]

230. It is important to recall that of the "series of events in 1997 and 1998"[250] which apparently prompted the Special Review, none were focussed on occupational exposure.[251]

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[246] Second Ingulli Statement at para. 45.

[247] Canada's Counter-Memorial at paras. 281-86.

[248] Canada's Counter-Memorial at para. 288.

[249] Canada's Counter-Memorial at paras. 288-93.

231. While Chemtura cannot know with certainty what was in the minds of Dr. Franklin and Ms. Sexsmith at the time they elected to pursue a Special Review of lindane, but the facts suggest that their motive was political and their purpose was to eliminate the lindane market in Canada.

232. Prior to 1998, lindane was the insecticide of choice for canola producers due to its cost and efficacy. Lindane products for use in Canada were consequently very commercially successful, particularly for Chemtura. Canada was prepared to defend, at the Aarhus Protocol negotiations, the continued use of lindane as a seed treatment. In early 1998, the trade irritant issue with the U.S. came to the forefront. The canola and canola growers' associations became skittish. At the same time, there was increasing political and international attention on the Canadian Arctic Commitments Report which found persistency of alpha and beta HCH isomers in the Northern environment, which isomers were finding their way into the diets of Northern indigenous peoples.

233. Neither of those developments could have supported a decision by the PMRA to take regulatory action on lindane. However, Canada had committed to a re-evaluation of lindane as part of the Aarhus Protocol. By employing the almost-never used vehicle of the Special Review rather than a standard re-evaluation, the PMRA would have greater control over the manner in which the review would unfold and the content and focus of the review.

234. In fact, the Special Review allowed the PMRA to respond to the domestic political pressure arising from the Canadian Arctics Commitments Report and allowed the PMRA to be perceived as an "environmental leader" by other countries and thereby to extract concessions from other countries which would further alleviate the perceived concerns arising in connection with the Arctic.

[250] Canada's Counter-Memorial at para. 279.

[251] Second Ingulli Statement at para. 52.

235. At the same time, the commitment to conduct a review as part of the CWA was perccived by Chemtura and the registrants as a way for the PMRA to harmonize with the U.S. by allowing for registrations in Canada and the U.S. and eliminating the trade irritant issue. The PMRA had a different view on how to eliminate the trade issue, and that was by eliminating lindane. The Special Review was the means to achieve that objective.

236. In an email from Dr. Franklin to Janet Taylor of the PMRA immediately following the November 24, 1998 meeting with registrants, dated November 26, 1998, Dr. Franklin states: "In order for us to develop an approach that is consistent with all of the international activities it will be necessary for us to consider next steps, *i.e.* should we consider that we are into a re-evaluation of lindane."[252]

237. A re-evaluation, according to John Worgan, is "a scheduled cyclical review of a product and a due diligence exercise to ensure the product meets current safety standards."[253]

238. The PMRA did not, however, launch a re-evaluation. In the draft project sheet by which the PMRA commenced preparations to re-evaluate lindane, the original Project Title "Reassessment of Lindane" was scratched out and replaced in handwriting with "Special Review of Lindane.[254]

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[252] Second Ingulli Statement at para. 50 and Investor Reply Exhibit 51.

[253] Worgan Affidavit at para. 74.

[254] Second Ingulli Statement at para. 52 and Investor Reply Exhibit 52.

239. As Mr. Worgan notes, only three active pesticide ingredients were targeted for Special Review from 1995 to 2002, among them lindane.[255] This is contrasted to the 450-500 active ingredients registered during that period.[256]

240. Contrary to Mr. Worgan's assertions in his affidavit, international concerns in respect of lindane did not motivate the conduct of a Special Review. The only specific concern in connection with lindane at the time was the trade irritant issue, which was not and is not today a basis on which a Special Review, as opposed to a general re-evaluation, may be conducted.[257]

241. The original "Stated Goal" in the draft project sheet had been "To undertake a reassessment of all existing uses of lindane, as required for compliance with the provisions of the UNECE LRTAP POPs protocol."[258]

242. In a subsequent document the project objectives were recast as follows:

> 1. To clarify the science regarding specific issues related to the safety of lindane to human health and the environment.
>
> 2. to reassess the registration of currently registered products, in light of the science.[259]

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[255] Worgan Affidavit at para. 75. The old PCPA did not, in fact, contain any provision for the Special Review of a control product. Amendments to the Act in 2002 included a provision providing specific guidelines as to when a Special Review is required. In particular, the new Act requires that a Special Review be conducted on any control product containing an active ingredient that has been banned by another OECD member country. However, as the David Suzuki Foundation pointed out in a 2006 letter to the Minister of Health, 60 active ingredients that have been prohibited for use by OECD member countries continue to be registered for use in Canada – not a single one has been subject to a Special Review. Investor Reply Exhibit 53.

[256] Worgan Affidavit at para. 53.

[257] Second Ingulli Statement at para. 54.

[258] Second Ingulli Statement at para. 55 and Investor Reply Exhibit 52.

[259] Second Ingulli Statement at para. 56 and Investor Reply Exhibit 54.

243. In an email, dated January 8, 1999, pre-dating the launch of the Special Review, Ms. Sexsmith stated:

> Some comments:
>
> 1. timing on the demise of lindane ...
>
> ...[260]
>
> [Emphasis added]

244. Not only does this demonstrate a bias on the part of PMRA, it confirms a concerted effort to bring about the "demise" of lindane by *any* means.[261] The withdrawal of lindane product registrations under the CWA was, in the PMRA's view, to be permanent.

245. Perhaps the most telling, however, of the PMRA's drive to bring about the "demise" of lindane in Canada, and their corresponding lack of any real interest in any objective information that may inform their evaluation, is their treatment of Dr. Don Waite, a Research Scientist with Environment Canada.[262]

246. In an October 5, 1999 email, Bob Chyc of Gustafson describes a conversation with Dr. Waite, whose group had studied lindane volatization during a period of two years. Dr. Waite offered to present his information to the PMRA; however, the PMRA indicated they did not have time for him.[263]

247. Volatilization leads to transportation of a chemical, which is the cause of concern in connection with HCH and purported health effects on northern populations in the arctic. How could the PMRA not have time to review data on this subject?

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[260] Second Ingulli Statement at para. 57 and Investor Reply Exhibit 55.

[261] Second Ingulli Statement at para. 58.

[262] Second Ingulli Statement at para. 59.

[263] Second Ingulli Statement at para. 60 and Investor Reply Exhibit 56.

The answer lies in the fact that they already had the answer they were looking for - occupational exposure - and had no interest in data that could shed a positive light on lindane.[264]

248. An internal PMRA email dated February 8, 1999, which advised the technical groups of the commencement of the review, indicates that the review was commenced in haste, with little or no thought given to what the review would entail.[265] In particular, Suzanne Geertsen wrote the following in response to a request by Mary Jane Kelleher of a time estimate to review the lindane database and identify data gaps:

> [***]
>
> I am afraid I have to concur with Yuk on this one. Before it will be possible for me to come up with any time estimates, I need to know what will be expected of ITES. That is, what is the scope of this special review; are we looking only at lindane or at contaminants too; are we addressing all endpoints or are we concentrating on certain issues; what will our role be versus that of the Food Contaminant's group? As long as we don't know what it is we are investigating, it will be impossible for us to determine how long it will take us to do it. Similarly, it isn't even possible to identify data gaps without knowledge of what we are looking for. I think it may be premature to go to AMC next week. We really ought to have another team meeting where we try to develop a plan to determine the scope of this review. That might involve a status update on what information is available and include outlining a variety of issues that may need to be addressed to find options that can best address those issues. I think that we will then need to take this to upper management to get agency wide agreement on what it is we are trying to address in this review. Only then will we be able to determine what resources will be required to meet those aims. Otherwise I fear we are just wasting our time.
>
> [...]

249. The motivations of the PMRA became even clearer once the Special Review was underway.

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[264] Second Thomson Statement at para. 61.

[265] Second Ingulli Statement at para. 62 and Investor Reply Exhibit 57.

250. In an email dated May 22, 2000, from Al Gwilliam, a technical consultant representing Inquinosa, the lindane technical manufacturer, Mr. Gwilliam states:

> Let me add my interpretation of what is happening.
>
> 1) Wendy Sexsmith and others in Health Canada would like to see lindane gone for political and personal career reasons. The new Indian Province sees contamination originating in the rest of Canada as an issue to be exploited. Wendy's job is to find new safer alternatives to current pesticides.[266]
>
> [Emphasis added.]

251. This same opinion that the PMRA was acting out of bias or improper motive was expressed contemporaneously by Keith Lockhart, Business Manager of Crompton Canada's Crop Protection Products Division, in a January 16, 2001 email in which he states: "I think [the PMRA] really really want to deep six Lindane, but they could have a problem if EPA were to issue a tolerance at the end of the exercise."[267]

252. The PMRA knew from the beginning that this would be a problem. On June 16, 1999, Ms. Buth asked Ms. Sexsmith whether, if registrants obtained a U.S. registration for lindane on canola, the PMRA would re-instate the Canadian registrations. In internal correspondence between Roy Lidstone and Ms. Sexsmith, the answer was "yes", because "[i]f we refused to register, we would need a good reason."[268] That "good reason" became the occupational exposure assessment.

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[266] Second Ingulli Statement at para. 63 and Investor Reply Exhibit 58.

[267] Second Ingulli Statement at para. 64 and Investor Reply Exhibit 59.

[268] Second Ingulli Statement at para. 65 and Investor Reply Exhibit 60.

B. The PMRA's Special Review was inexcusably delayed

253. Canada presents numerous reasons for the delays in completing the scientific review. Canada states that "it was the linkage of the PMRA's process to that of the EPA that was the primary source of delay."[269] Canada then states that the relevant EPA reviews were originally anticipated in 2000 and that the EPA reviews used by the PMRA were generated over the course of two years, with the last toxicology review report generated as late as August 30, 2001.

254. However, as the PMRA had concluded that its focus was going to be on occupational exposure, the delay of EPAs toxicology report until August 30, 2001 should have been irrelevant. In any event, the PMRA was responsible for completing its Special Review on time, in accordance with its commitments under the CWA. It cannot shelter behind the EPA, which was not a party to the CWA and not obligated to complete its evaluation within the schedule agreed to by the parties to the CWA.[270]

255. It is clear, and objectively confirmed by the Lindane Board of Review, that the PMRA had realized by early to mid-2001 that they and the EPA were not going to agree on the appropriate margin of exposure and therefore the then-pending EPA toxicology report was irrelevant. Based on the margin of exposure decided upon by the PMRA, it already had sufficient information to justify its conclusions.[271] The only possible reason to await the EPA toxicology report was the hope that it would build an even stronger case for the PMRA's conclusions. This turned out not to be the case.

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[269] Canada's Counter-Memorial at para. 336.

[270] Second Ingulli Statement at para. 68.

[271] Second Ingulli Statement at para. 69.

C. The PMRA 's Special Review was incomplete and unbalanced

256. Canada attempts at length to justify its conduct in the Special Review. However, the Lindane Board of Review, an independent panel established by the Canadian Minister of Health, has already determined that the PMRA's conduct throughout the process was severely flawed,

257. Indeed, contemporaneous accounts of the conduct of the Special Review demonstrate bias on the part of the PMRA, and a clear intention to eliminate lindane from the Canadian marketplace, with or without science-based justification.[272]

258. The interests and motivations of the PMRA may be found in its Interim Report on the Special Review, dated November 22, 2000, which states:

> The PMRA has actively encouraged pesticide manufacturers to formulate seed treatments without lindane, and to submit requests for registration of seed treatment products to replace lindane.[273]

259. That statement does not reflect the conduct or mindset of a neutral, unbiased decision-maker. This statement confirms that the PMRA had already decided that lindane use in Canada was finished and that the industry better find alternatives. In other words, the PMRA had pre-judged the outcome, but would take another year after this Interim Report to find (or rather create) the science to back-up its position.

260. The suggestion that the PMRA genuinely sought to cover a wide range of concerns in its Special Review is not borne out by the evidence. From Canada's production, it appears that there was a PMRA meeting on January 19, 1999 to discuss lindane. Handwritten notes from that meeting include the following:

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[272] Second Ingulli Statement at para. 71.

[273] Second Ingulli Statement at para. 72 and Investor Reply Exhibit 61.

> 4. Special Review – not re-eval …
>
> […]
>
> - need focus e.g. accumulation in environment vs.
> - no data call-in
> - words with maximum coverage.
> - 'link with EPA/OR NOT[274]

261. This note concludes with the following: "close the door on all".

262. The foregoing suggests that there was not, in fact, a genuine focus for the review but rather the PMRA felt the need to identify one or more focuses. Further, the intention to use "words with maximum coverage" indicates that the idea of describing the focus broadly was simply a means for the PMRA to protect itself.[275]

263. Canada's position is that the PMRA "expressly" communicated to Chemtura that occupational exposure would be a key area of focus.[276] Canada states that the PMRA clearly told Chemtura that occupational exposure was a concern in the Special Review, particularly because of the 1999 finding from the UK.

264. However, the PMRA itself, as documented in a meeting report dated January 31, 2000 stated:

> We have the UK report but it is of limited use because their methods of estimating risk are so very different from PMRA's ….[277]

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[274] Second Ingulli Statement at para. 73 and Investor Reply Exhibit 62.

[275] Second Ingulli Statement at para. 74.

[276] Second Ingulli Statement at para. 75.

[277] Second Ingulli Statement at para. 77 and Investor Reply Exhibit 63.

265. In other words, the PMRA itself considered the UK conclusions to be of little value.[278]

266. It is clear that the PMRA never expressly communicated to Chemtura that it had serious concerns about occupational exposure. The making of general statements from which Chemtura was apparently to infer that occupational exposure would be a significant area of concern is not the required standard of a regulator who is considering terminating a registration.[279]

267. Moreover, the fact that the UK was of the view that there were occupational concerns has only limited relevance. The seed treating practices in the UK are entirely different than the seed treating practices in Canada. Occupational exposure concerns are significantly affected by the method of application.[280]

268. Further, the PMRA's blind "reliance" on the Dupree occupational exposure study was disingenuous and discriminatory. The PMRA never requested an occupational exposure study or data. Rather, Dr. Franklin mentioned that they were reviewing occupational exposure issues and therefore Chemtura offered to provide the PMRA with the Dupree study, which had been submitted to the PMRA in 1992 in any event.[281]

269. The PMRA knew that this study had been conducted using application methods which were no longer used, yet took the position that it was required to rely on, and only on, the Dupree study.[282]

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[278] Second Ingulli Statement at para. 78.

[279] Second Ingulli Statement at para. 79.

[280] Second Ingulli Statement at para. 80.

[281] Second Ingulli Statement at para. 81.

[282] Second Ingulli Statement at para. 82.

270. Further, the PMRA's conduct in this regard was the exact opposite of the approach it took with Syngenta in rcspcct of Hclix.

271. At paragraph 49 of her affidavit, Ms. Chalifour states that the PMRA was not satisfied with the surrogate study submitted by Syngenta and therefore requested that Syngenta submit a new occupational exposure study.

272. Chemtura was never given this opportunity. Instead, the PMRA relied on a study which it knew to reflect out of date practices and never requested any occupational exposure data from Chemtura.[283]

273. There is no basis to distinguish between the registration of a new control product and the re-registration of an old control product for the purpose of ensuring the product's safety. To suggest as Mr. Worgan does, that ensuring the PMRA has complete data on which to make a safety assessment is unnecessary in the case of the evaluation of a currently registered product because this would lead to an "'endless regress' of data submissions"[284] but necessary in the case of the evaluation of a new product is nonsensical.[285]

274. Chemtura was not given any meaningful opportunity to participate in the Special Review Process, and the Review Board confirmed this. After taking over two years to conduct its (partial) review, the PMRA gave registrants an initial 7 days to comment on its occupational exposure assessment. Registrants were unanimous in finding this period grossly inadequate, however, the PMRA agreed to extend the period only by another 7 days.[286]

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[283] Second Ingulli Statement at para. 83.

[284] Worgan Affidavit at para. 82.

[285] Second Ingulli Statement at para. 86.

[286] Second Ingulli Statement at para. 87.

275. John Worgan claims that all the data submitted to the PMRA during this very short period "consisted of data that the PMRA had already collected and considered in the course of its review",[287] implying that registrants could have generated new or additional data within this short time span.

276. This comment is at best disingenuous for a couple of reasons. *First*, Chemtura repeatedly offered to supply new data if needed by the PMRA, and was repeatedly told that the PMRA had all of the data it needed to complete the Special Review, aside from some relatively trivial product chemistry information. *Second*, even if the PMRA had requested data, it takes time to generate data and conduct studies. Such comments only underscore the fact that the PMRA sought to foreclose any challenge to its assessment.[288]

277. Canada defends the PMRA's minimal comment period by stating that the PMRA had reason to believe that continued use of the product could damage human health and the environment.[289] Nevertheless, the PMRA was prepared to allow lindane products to be used for another three years. In the end, the occupational exposure concerns were found to be non-existent by EPA.[290]

278. Even more pointedly, in handwritten notes prepared by Suzanne Geertsen of PMRA during an internal meeting on August 31, 2001, she writes with respect to EPA's on-going review: "Ensure EPA not wavering on canola use."[291]

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[287] Worgan Affidavit at para. 165.

[288] Second Ingulli Statement at para. 89.

[289] Canada's Counter-Memorial at para. 354.

[290] Second Ingulli Statement at para. 90.

[291] Second Ingulli Statement at para. 91 and Investor Reply Exhibit 64.

279. As the PMRA grew closer to finalizing its Special Review, there was a growing impression among stakeholders that the PMRA was determined to eliminate lindane from the Canadian market.[292]

280. In a September 12, 2001 email, Rob Dupree summarizes a conversation with JoAnne Buth following EPA's preliminary risk assessment on lindane, stating:

> Joanne had the following comments:
>
> 1. She felt the preliminary review was very positive and stated that the Canola Council is very concerned that lindane could end up being approved for use on canola in the US but not in Canada.
>
> 2. She fears PMRA may decide to not support reinstatement of use on canola in spite of a potential positive review by EPA. Argument PMRA could use is that Canadian geographic and political issues don't support reinstatement.
>
> 3. They are having discussions with their US counterparts (Northern Canola Growers Association and Minnesota) and do plan to respond with comments to EPA and possibly PMRA. All stakeholders will be copied.
>
> 4. Joanne also stated that there was a time when she could call Wendy Sexsmith PMRA and have a discussion on this topic but that door has been closed since the Crompton lawsuit was initiated.
>
> 5. Canola Council recognizes that alternatives to a lindane seed treatment will not be as cost effective.
>
> My thoughts:
>
> 1. I think whatever relationship CCC had with PMRA has ended and now their concern is PMRA position will change from stating that they would support reinstatement, if review was positive to cancelling uses based on geographic/political issues pertinent to Canada.
>
> 2. We can expect PMRA to use whatever arguments it can to not support reinstatement such as political climate doesn't support it, indigenous people will be opposed, alternatives available etc.[293]

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[292] Second Ingulli Statement at para. 92.

[293] Second Ingulli Statement at para. 94 and Investor Reply Exhibit 65.

[Emphasis added]

281. Through the vehicle of the Special Review, the PMRA set out to eliminate all uses of lindane – not to comply with international concerns, but in a prejudicial and misguided effort to unilaterally put to rest an "old" pesticide already in the cross-hairs as a trade irritant. [294] In other words, the PMRA was going to find against lindane, irrespective of the science.

282. The evidence shows, however, that while the PMRA sought data from EPA and hoped to rely on that data, it decided not to do so when it became clear that EPA was going to reach the opposite conclusion as that of the PMRA.[295]

283. Indeed, it is clear that the PMRA was advocating that EPA should use the same risk factors as the PMRA, in order that EPA would find the occupational exposure levels to be unacceptable. In a meeting confirmation note confirming a meeting requested by Suzanne Geertson of PMRA with EPA on January 30, 2001, Mark Howard of EPA noted the following[296]:

> PMRA is using a 10x for their (FQPA-like safety factor). OPP has determined a 3x for FQPA. Suzanne Geertson of PMRA would like to better understand the basis of our 3x call. She is has [sic] raised concerns about OPP using several unacceptable studies and not using (any?) studies published in the literature. [297]

284. In a follow-up email, dated February 9, 2001, Ms. Geertson wrote to Lois Rossi and Anne Lindsay of EPA, stating that there appeared to be a "fundamental

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[294] Second Ingulli Statement at para. 94.

[295] Second Ingulli Statement at para. 95.

[296] Second Ingulli Statement at para. 96.

[297] Investor Reply Exhibit 66.

difference" developing in the respective agency's approaches to the exposure safety factor which "could create some difficulties for both our countries." .[298]

285. Canada and its Counter-Memorial at paragraphs 293-294 states that it had decided to rely on the reviews of other national regulators. However, if PMRA had relied on the U.S. assessment of risk, and the proposed mitigation factors, the occupational risk would have been acceptable (as was found by the EPA). Instead, the PMRA established an artificially high margin of exposure and relied on this to buttress its pre-determined decision. While the PMRA throughout its Counter-Memorial refers to collaboration with the EPA (e.g., paragraph 313: "[w]orking in tandem with the EPA's lindane review in"), there was a clear and unexpected divergence on the issue of occupational risk. It is clear that the PMRA did not actually seek to achieve its stated "overarching goal of co-ordinating and harmonizing pesticide regulation as much as possible between Canada and the United States."[299]

286. In a last effort to justify the PMRA's approach, Canada states that different aspects of a re-evaluation do not necessarily proceed at the same speed.[300] However, one would assume that the evaluations of issues other than occupational exposure were fairly far advanced. The only material difference between the evaluations for occupational exposure and the other areas was that the PMRA had found a way to reach a negative result for occupational exposure. [301]

287. Indeed, it is difficult to conceive that the PMRA would have blindly proceeded with a regulatory action on occupational exposure without having first completed

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[298] Investor Reply Exhibit 67.

[299] Canada's Counter-Memorial, at para. 308.

[300] Canada's Counter-Memorial at para. 305.

[301] Second Ingulli Statement at para. 98.

assessments on product chemistry, use and usage, toxicology and human health. These and other study evaluations can greatly influence the ultimate outcome of an occupational assessment.[302]

288. Once the PMRA had decided that its Review was going to find against lindane, it took the position that EPA should also not allow lindane use, in essence capitalizing on the trade irritant issue to actively bring about the demise of lindane.[303]

289. In an internal PMRA email dated December 27, 2000, Adrian Carter summarizes a conversation with Mark Howard of EPA. In it he states: "There is still differing opinions [between EPA and the PMRA] on the 3x/10x safety factor. Mark felt their toxicologists would probably not change their position on this point but we'll see."[304]

D. The Investor was given an unfair ultimatum, not an "option", to withdraw its lindane product registrations

290. In its December 29, 2001 letter, the PMRA advised Chemtura that registration of eight of its lindane products would be terminated, either through suspension of the registrations or "voluntary discontinuation". As with the voluntary withdrawal of lindane for canola seed treatment, there was nothing truly voluntary about this act. The choice was in fact an ultimatum. In any event, although Chemtura complied with the PMRA's data request in respect of its eight product registrations, which should have ensured their gradual phase out pursuant to Section 16, the PMRA unilaterally and arbitrarily suspended the registrations.[305]

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[302] First Thomson Statement, Exhibit C-13.

[303] Second Ingulli Statement at para. 99.

[304] Second Ingulli Statement at para. 100 and Investor Reply Exhibit 68.

[305] Second Ingulli Statement at para. 101.

291. Canada explains that where a registrant refuses to proceed on a voluntary basis under Section 16 of the PCPR, the PMRA has no further flexibility and is obliged to suspend registrations under Section 20 of the PCPR which does not provide for a phase-out.[306]

292. *First* of all, one of the provisions agreed to in the CWA had been that Chemtura's non-lindane registrations would continue to be allowed.[307]

293. *Second*, while Chemtura objected to the ultimatum forced upon it, particularly in light of its view that the Special Review (whose issuance in October 2001 had triggered the ultimatum) was deeply flawed in its process and conclusions, it did proceed on a "voluntary" basis under Section 16 to provide the PMRA with all data requested to orchestrate a phase-out of its lindane products. It therefore expected, consistent with the PMRA's proposal for a gradual phase-out, that its products would continue to be sold in 2003 and used for seeds planted through 2004.[308]

294. *Third*, the PMRA appears to have a great deal of flexibility in managing pesticide registrations when it suits it, but arbitrarily falls back on strict interpretation of the PCPA and PCPR when convenient to explain, after the fact, an action it took contrary to the legitimate expectations of a registrant. Canada appears to have taken the same position in defence of the PMRA in this arbitration. In practice, however, it is clear that the PMRA ignored its governing statute whenever such wilful blindness suited the PMRA.[309]

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[306] Canada's Counter-Memorial at para. 365.

[307] Second Ingulli Statement at para. 103.

[308] Second Ingulli Statement at para. 104 and Exhibit B-56 to the First Ingulli Statement.

[309] Second Ingulli Statement at para. 105.

VII. The market for Lindane for Canola Seed Treatment following the Special Review was Destroyed

A. The Investor withdrew its tolerance petition and re-registration application because the PMRA's conduct had effectively eliminated the market for its lindane products

295. Canada repeatedly cites the cancellation of registered uses for lindane in the United States as evidence of its harmfulness. Such cancellations reflect nothing more than market realities.

296. At paragraph 454 of its Counter-Memorial, Canada points to the fact that registrants sought voluntary cancellations for certain uses of lindane. This is not an indicator of the harmfulness of lindane. Registrants cancel uses when the uses serve no purpose, e.g. when the registrants have developed other products. In such instances, the regulator prefers to remove the "defunct" products in order to clean off its books. From the registrants' point of view, the removal of defunct uses also improves the chances of existing uses continuing to be approved for use, given that EPA in its analysis of potential dietary exposure will reduce the calculated amount of a pesticide present in the environment and in the food chain, based on the reduction in uses.[310]

297. The EPA was actively seeking to remove obsolete tolerances from its register, for its own internal purposes. This was made clear in an email from Mark Howard of EPA to Jeff Parsons of the PMRA, dated December 21, 2001[311]:

> There is a big push on now to officially cancel any obsolete tolerances now for any chemicals no matter where they are in the process. This is to OPP can try to get closer to the Congressionally mandated 2/3 review of all tolerances on the books by August 2, 2002. There are plenty of tolerances around on that are on crops or an animals that registrants don't need anymore. For lindane that means we will be offering up several of

[310] Second Thomson Statement at para. 103.

[311] Second Thomson Statement at para. 104.

> the old ones (31 for now). We will be retaining the 6 remaining crops and the animals that would use those crops for feed plus the 7 vegetable crops that the registrant agreed to cancel recently. The latter 7 will be cancelled once we have confirmed with the minor crop people that these are no longer needed. Perhaps we can talk on the phone later today to make sure we both know how things are looking going to the new year.[312]
>
> [Emphasis added]

298. Moreover, it is important to understand that the PMRA was encouraging the EPA to reach negative conclusions about lindane. The lindane products affected by the cancellation of these tolerances were of minimal commercial value. This was confirmed by an email from Inquinosa to the EPA on November 26, 2001.[313]

299. In a November 6, 2001 email to Lois Rossi of the EPA, Ms. Sexsmith stated[314]:

> ... Also just as a note, I presume you require for a tolerance petition, the submission of a current registered label for uses in the exporting country. With respect to the canola lindane tolerance petition that you have received, there are no currently registered uses for lindane on canola in Canada and therefore no currently registered label in Canada available for such a petition.[315]

300. Canada also suggests that the 2002 RED by the EPA was equivocal or not as positive as that suggested by Chemtura. However, an email from Mark Howard of the EPA to the PMRA dated June 25, 2002 makes it very clear that the EPA was going to make a positive decision[316]:

> Currently we are headed in the direction of making an "eligible for reregistration" finding if we do not incorporate the exposure/risk of scabies uses into the RED. (If we need to fully incorporate the scabies

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[312] Investor Reply Exhibit 69.

[313] Second Thomson Statement at para. 105 and Investor Reply Exhibit 70.

[314] Second Thomson Statement at para. 106.

[315] Investor Reply Exhibit 70.

[316] Second Thomson Statement at para. 107.

> use into the risk cup it looks like we will not be able make an eligible for reregistration finding.)
>
> Reregistration would take the form of permitting commercial seed treatment of all six crops (barley, corn, oats, rye, sorghum, and wheat) with some additional worker inhalation protection requirements plus on-farm seed treatment for either liquid formulations of lindane (to treat all six crops) and dust formulations for corn and sorghum only. We will be calling in an on-farm exposure study for the dust formulation.
>
> For the environmental risk assessment we are having some discussions on the PBT issues of lindane and its two substitutes (thiamethoxam and imidicloprid.) Other than that we pretty much have accepted that the risk (RQs) seem to be over stated. We probably will be calling in a seed leaching study to confirm the amount coming off the seed is less than conservative nature of the assessment. Other studies will be held on reserve.[317]
>
> [Emphasis added.]

301. In other words, the EPA was satisfied that the risks were acceptable.[318]

302. Chemtura in its Memorial at paragraphs 286-294 described at length the reasons for voluntarily withdrawing lindane registrations in the U.S. In particular, in March 2000, Chemtura had acquired Trace Chemicals which held U.S. registrations for non-lindane products which met the same market need as Chemtura's then-current lindane-continuing products.[319]

303. As a result, there was no financial reason to incur the cost of obtaining the additional data that may have been necessary to maintain the current lindane registrations, given the availability of non-lindane alternatives now in Chemtura's product offerings.[320]

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[317] Investor Reply Exhibit 71.

[318] Second Thomson Statement at para. 108. See also Second Aidala Statement, paras. 14-19.

[319] Second Thomson Statement at para. 109.

[320] Second Thomson Statement at para. 110.

304. Further, and importantly, if Chemtura Canada's Lindane Products had continued to be registered in Canada, Chemtura would have actively pursued a U.S. registration and/or tolerance for lindane on canola. However by 2006, the PMRA had shut the door on this business.[321]

PART THREE LEGAL ANALYSIS

305. *Summary:* NAFTA Chapter 11 offers an important mechanism by which investors of a Party, such as Chemtura, may seek recourse in respect of the acts or omissions of another Party before an impartial international tribunal and, upon a positive outcome, directly enforce any award against that Party. This is particularly important in this case, where the Investor has been consistently denied due process and fair treatment by a partial and biased national regulator. This is the context for the application of NAFTA's provisions.

306. Canada's attempt to justify its conduct after the fact by reference to environmental and public welfare goals and the selective invocation of corresponding language in NAFTA's introductory provisions is particularly offensive in this light, contradicting both the spirit and the object of NAFTA. The Tribunal's approach to the interpretation of the applicable NAFTA provisions in this case should be guided simply by the basic principles of treaty interpretation set forth in the *Vienna Convention*, without further gloss.

I. Principles Governing Interpretation of NAFTA

A. Canada's interpretation would undermine the purpose of Chapter 11

307. Both Parties and investors of Parties are afforded two separate mechanisms under NAFTA by which the obligations of a Party may be enforced. Nevertheless,

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[321] Second Thomson Statement at para.111.

Canada begins its analysis of the interpretational principles applicable to NAFTA with the proposition that "only a Party to the NAFTA has the right to enforce the obligations therein", relying upon Articles 2004 and 2018. Articles 2004 and 2018, under NAFTA Chapter 20 (Institutional Arrangements and Dispute Settlement Procedures), respectively provide as follows:

> **Article 2004: Recourse to Dispute Settlement Procedures**
>
> Except for the matters covered in Chapter Nineteen (Review and Dispute Settlement in Antidumping and Countervailing Duty Matters) and as otherwise provided in this Agreement, the dispute settlement provisions of this Chapter shall apply with respect to the avoidance or settlement of all disputes between the Parties regarding the interpretation or application of this Agreement or wherever a Party considers that an actual or proposed measure of another Party is or would be inconsistent with the obligations of this Agreement or cause nullification or impairment in the sense of Annex 2004.
>
> **Article 2018: Implementation of Final Report**
>
> 1. On receipt of the final report of a panel, the disputing Parties shall agree on the resolution of the dispute, which normally shall conform with the determinations and recommendations of the panel, and shall notify their Sections of the Secretariat of any agreed resolution of any dispute.
>
> 2. Wherever possible, the resolution shall be non-implementation or removal of a measure not conforming with this Agreement or causing nullification or impairment in the sense of Annex 2004 or, failing such a resolution, compensation.

308. Canada further contends that Chapter 11, among other chapters, offers private parties only "limited access to international jurisdiction."[322]

309. It is unclear whether Canada intends, with this distinction, to suggest that a private party under Chapter 11 does not, in fact, have a right to enforce an obligation therein. Such a suggestion runs counter to express provisions in Chapter 11 that provide for the independent enforcement of a Party's obligations under NAFTA through recourse to investor-state arbitration.

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[322] Canada's Counter-Memorial at para. 470.

310. In particular, Article 1136 provides that an investor may seek enforcement of any award issued by a tribunal constituted under Section B of Chapter 11 under the ICSID Convention, the New York Convention or the InterAmerican Convention, regardless of whether proceedings have been taken under Chapter 20 of NAFTA:

> Article 1136: Finality and Enforcement of an Award
>
> 1. An award made by a Tribunal shall have no binding force except between the disputing parties and in respect of the particular case.
>
> 2. Subject to paragraph 3 and the applicable review procedure for an interim award, a disputing party shall abide by and comply with an award without delay.
>
> 3. A disputing party may not seek enforcement of a final award until:
>
> (a) in the case of a final award made under the ICSID Convention
>
> (i) 120 days have elapsed from the date the award was rendered and no disputing party has requested revision or annulment of the award, or
>
> (ii) revision or annulment proceedings have been completed; and
>
> (b) in the case of a final award under the ICSID Additional Facility Rules or the UNCITRAL Arbitration Rules
>
> (i) three months have elapsed from the date the award was rendered and no disputing party has commenced a proceeding to revise, set aside or annul the award, or
>
> (ii) a court has dismissed or allowed an application to revise, set aside or annul the award and there is no further appeal.
>
> 4. Each Party shall provide for the enforcement of an award in its territory.
>
> 5. If a disputing Party fails to abide by or comply with a final award, the Commission, on delivery of a request by a Party whose investor was a party to the arbitration, shall establish a panel under Article 2008 (Request for an Arbitral Panel). The requesting Party may seek in such proceedings:
>
> (a) a determination that the failure to abide by or comply with the final award is inconsistent with the obligations of this Agreement; and
>
> (b) a recommendation that the Party abide by or comply with the final award.

> 6. A disputing investor may seek enforcement of an arbitration award under the ICSID Convention, the New York Convention or the InterAmerican Convention regardless of whether proceedings have been taken under paragraph 5.
>
> 7. A claim that is submitted to arbitration under this Section shall be considered to arise out of a commercial relationship or transaction for purposes of Article I of the New York Convention and Article I of the InterAmerican Convention.
>
> [Emphasis added.]

311. It is evident on the face of this provision, and in particular its paragraph 6, that an investor seeking the enforcement of an obligation of a Party may do so directly under Chapter 11. The provisions of Chapter 20 are entirely irrelevant in this regard.

B. Canada attempts to gloss the issues and reorient the interpretational lens

312. Canada and the Investor are in agreement that the Tribunal is to be guided by the principles set forth in Articles 31 and 32 of the *Vienna Convention* in its interpretation of NAFTA.[323] The parties further agree that NAFTA must be interpreted in the "appropriate context".[324] The Investor echoes in this regard Canada's position that caution must be exercised in applying or invoking the object and purpose of NAFTA in a manner that would undermine the specific rules and principles set forth in the text of the Agreement.[325]

313. It is therefore surprising that Canada attempts to reposition the interpretational lens by focussing on preambular language identifying aspirational goals related to the environment and public welfare in a manner that would undermine the specific language of the rules and principles articulated in Chapter 11.

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[323] Investor's Memorial at paras. 326-331; Canada's Counter-Memorial at paras. 484-486.

[324] Canada's Counter-Memorial at para. 488.

[325] Canada's Counter-Memorial at par. 492.

314. Canada selectively invokes general language in NAFTA's introductory provisions concerning public welfare and the environment in an *ex post* exercise to justify conduct that clearly had nothing to do with environmental or public health goals. This attempt to gloss the issues in dispute – and Canada's underlying breaching conduct - with a veneer of environmental concern is grossly inappropriate.

315. NAFTA Article 1115 sets out of the purpose of Chapter 11 – and the reason for the Investors' claim: "This Section establishes a mechanism for the settlement of investment disputes that assures both equal treatment among investors of the Parties in accordance with the principles of international reciprocity and due process before an impartial tribunal." (emphasis added)

316. However either disputing party may wish to describe the object and purpose of NAFTA in the context of this dispute, it is "due process" – after a long denial thereof – that motivates the Investor to pursue the requested relief in this arbitration, and the Tribunal's interpretation of NAFTA's various provisions should proceed on this footing.

II. Canada Failed to Meet the Standard of Treatment Required by Article 1105(1)

317. *Summary:* The prevailing view in investment treaty arbitration is that there is no principled difference between the customary international law minimum standard of treatment and the international law standard of fair and equitable treatment. Should this Tribunal take a different view, there is nevertheless evidence that the customary international law standard has evolved to achieve the same meaning as that attributed to fair and equitable treatment under international law. And in any event of the approach taken by the Tribunal, the evidence is such that Canada's conduct in this instance breaches the requirements of Article 1105(1) by any standard.

318. In its Counter-Memorial, Canada seeks, in essence, to significantly reduce the obligation on NAFTA Parties under Article 1105(1) by asserting that the minimum standard of treatment represents a base floor requiring only the lowest

common denominator of State behaviour. On Canada's interpretation of this standard, it is difficult to conccivc of any conduct that could be found to breach Article 1105(1).

A. The Interpretation of Article 1105(1)

319. The FTC Note of Interpretation states as follows:

> **2. Minimum Standard of Treatment in Accordance with International Law**
>
> 1. Article 1105(1) 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.
>
> 2. 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.
>
> 3. A determination that there has been a breach of another provision of the NAFTA, or of a separate international agreement, does not establish that there has been a breach of Article 1105(1).
>
> [Emphasis added]

320. Canada contends that the FTC Note of Interpretation "represents the definitive meaning" to be given to Article 1105 and that this is binding on NAFTA tribunals. While the Investor does not dispute that FTC Notes of Interpretation are binding on Chapter 11 tribunals, the Note does not, in fact, establish the content of the treatment required by Article 1105.

321. Rather, its purpose, as the tribunal observed in *Mondev International v. United States*, [326] is to "put at rest for NAFTA purposes a long-standing and divisive

[326] ICSID Case No. ARB(AF)/99/2, Award (11 October 2002).

debate about whether any such thing as a minimum standard of treatment of investment in international law actually exists."[327]

322. Thus, while this Tribunal is required to apply the customary international law minimum standard as the standard of treatment demanded of Canada under Article 1105, it is open to the Tribunal to determine the content of that standard in the context of this case.

B. The Contemporary Content of Article 1105(1)

1) The content of the minimum standard of treatment is not defined in the abstract

323. While the international minimum standard is established as a legal construct by customary international law, no universal definition exists that may be directly and meaningfully applied without consideration of the particular circumstances surrounding the investment or the investor's claim.

324. To the extent Canada argues that there is a single objective definition of the minimum standard, this position must, therefore, be rejected.

325. Arbitral tribunals have consistently held that what is required under the minimum standard is informed by the particular context and facts of the case.[328] As Rudolph Dolzer and André von Walter have observed, NAFTA authority confirms that the fair and equitable treatment ("FET") standard contained in Article 1105(1) is not an "absolute standard of a static nature which applies in the

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[327] *Ibid.* at para. 120 and n. 50. See also *ADF v. United States*, ICSID Case No. ARB(AF)/00/1, Award (9 January 2003), at para. 178 and n. 167.

[328] See e.g. *National Grid v. Argentine Republic,* UNCITRAL, Award (November 3, 2008) at para. 169. ("Whatever the merits of this controversy between the parties may be, it appears that the difference between the Treaty standard laid down in Article 3.1 and the customary minimum standard, when applied to the specific facts of a case, may well be more apparent than real. To the extent that the case law reveals different formulations of the relevant thresholds, an in-depth analysis may well demonstrate that they could be explained by the contextual and factual differences of the cases in which the standards have been applied".)

same manner under all circumstances".[329] Rather, the standard is flexible in that it recognizes the "state of the law" in the host State at the time an investment is made and during the period of the investment as its reference point.

326. In *GAMI Investments, Inc. v. Mexico*,[330] Mexico argued in response to the investor's fair and equitable treatment claim that the tribunal had no authority to "control" the application of national law by national authorities. The tribunal rejected this argument, observing that the fair and equitable treatment standard in Article 1105(1) is a legal "abstraction[]" requiring consideration of the surrounding context to determine whether the obligation contained therein has, in fact, been breached:

> This contention misconceives the role of international law in the context of the protection of foreign investment. International law does not appraise the content of a regulatory programme extant before an investor decides to commit. The inquiry is whether the state abided by or implemented that programme. It is in this sense that a government's failure to implement or abide by its own law in a manner adversely affecting a foreign investor may but will not necessarily lead to a violation of Article 1105. Much depends on context. The imposition of a new licence requirement may for example by viewed quite differently if it appears on a blank slate or if it is an arbitrary repudiation of a pre-existing licensing regime upon which a foreign investor had demonstrably relied.[331]

327. Indeed, commentary on Canada and the United States' respective post-NAFTA bilateral investment treaty negotiating models, which each contain a provision providing for treatment in accordance with the minimum standard of treatment,

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[329] Rudolf Dolzer and André von Walter, "Fair and Equitable Treatment – Lines of Jurisprudence on Customary Law" in F. Ortino, L. Liberti, A. Sheppard and H. Warren, eds., *Investment Treaty Law*, Vol. II (BIICL, 2008) 99 at p. 113.

[330] UNCITRAL (NAFTA), Award (15 November 2004).

[331] *Ibid.* at para. 91. See also *Waste Management, Inc. v. Mexico,* ICSID Case No. ARB(AF)/00/3, Award (30 April 2004) at para. 99 ("*Waste Management II*"), which the *GAMI* tribunal cites with approval: "Evidently the standard is to some extent a flexible one which must be adapted to the circumstances of the case."

confirms that on even a "cursory reading" the model provisions "do not lend themselves easily to simple conclusions about what kind of state conduct – in the abstract – falls below the floor they set, whether as a matter of treaty law or customary international law."[332]

2) The content of the minimum standard of treatment may vary depending on the host state's level of development

328. The degree to which an arbitral tribunal may consider a host State's level of development is not settled. It is, nevertheless, well-established that such a consideration is open to a tribunal in the appropriate circumstances.[333]

329. As illustrated by the cases and doctrinal discussion, the focus of the debate has been largely on whether it is acceptable or reasonable to hold a developing host State to the same standard as a developed host State for the purpose of finding a breach of an investment treaty.[334] The fact is, however, tribunals do often consider the host State's level of development, and it is open to this Tribunal to consider Canada's advanced level of development in determining whether it has satisfied its obligations under Article 1105(1) in the circumstances of this case.

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[332] Todd Weiler and Ian Laird, "Standards of Treatment" in P. Muchlinski, F. Ortino and C. Schreuer, *The Oxford Handbook of International Investment Law* (OUP, 2008) 259, at p. 265.

[333] See Akira Kotera, "Regulatory Transparency" in P. Muchlinski, F. Ortino and C. Schreuer, *The Oxford Handbook of International Investment Law* (OUP, 2008) 617 at p. 634 (The author, referring to a common meaning of fair and equitable treatment as the customary international law minimum standard, states: "Its concrete meaning should be adapted according to both the contents of each BIT, such as the purpose of the BIT, and the political and economic situations of the host states to which it applies."). See also Ian Brownlie, *Principles of Public International Law* (2003) at p. 505 explaining the importance, generally, of interpreting the host State's obligations in connection with the standard of treatment for aliens in a "sophisticated" manner that recognizes comparable and non-comparable situations.

[334] See *e.g.* Nick Gallus, "The Influence of the Host State's Level of Development on International Investment Treaty Standards of Protection", (2005) 6:4 J. of World Investment and Trade.

330. Canada rejects the proposition that its level of development ought to be a consideration in whether it has satisfied its treaty obligations.[335] This position is, of course, consistent with Canada's effort to trivialize its obligations to the Investor under Article 1105(1).

331. Canada mischaracterises the question as involving the applicability of municipal law, as opposed to consideration of the host State's level of development. Its arguments in this respect are therefore misplaced and should be rejected.

332. Canada relies upon the award in *Alex Genin, Eastern Credit Ltd.,* and *A.S. Baltoil v. The Republic of Estonia*[336] for the proposition that the international minimum standard is separate from domestic law and is a universally applicable, absolute minimum standard.[337] These points are irrelevant to the issue raised by the Investor in terms of Canada's level of development (and are, in any event, incorrect for the reasons discussed below). Canada notably omits to mention that the *Genin* tribunal commenced its analysis of Estonia's liability under the BIT with the following:

> We turn now to the crux of the case to be determined – what Claimants refer to as "the core issue" and Respondent calls "the heart of the matter": the revocation of EIB's license. In so doing, the Tribunal considers it imperative to recall the particular context in which the dispute arose, namely, that of a renascent independent state, coming rapidly to grips with the reality of modern financial, commercial and banking practices and the emergence of state institutions responsible for overseeing and regulating areas of activity perhaps previously unknown. This is the context in which the Claimants knowingly chose to invest in an Estonian financial institution, EIB.[338]

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[335] Interestingly, Canada nevertheless finds it appropriate and convenient to argue the "sophistication" of the PMRA as a Canadian federal regulator and of the Canadian courts in support of its arguments that its conduct was non-arbitrary See Canada's Counter-Memorial at paras. 702 and 715.

[336] ICSID Case No. ARB/99/2, Award (25 June 2001).

[337] See Canada's Counter-Memorial at para. 776.

[338] *Ibid.* at para. 348.

[Emphasis added]

333. The tribunal found, on the "totality of the evidence", that Estonia's conduct did not rise to the level of a breach of the FET standard in the BIT.

334. Canada's reliance on *Saluka Investments BV v. The Czech Republic*[339] in support of its position is also unhelpful, as the language selectively quoted in that award addresses a different point than the one in issue here. The language omitted by Canada in the *Saluka* award supports the Claimant's position that, in a given context, the content of the customary international law minimum standard of treatment and fair and equitable treatment, as discussed in arbitral jurisprudence, may be one and the same.[340]

335. In addition, contrary to Canada's contention, it is irrelevant that the claim at issue in *Generation Ukraine v. Ukraine*[341] did not involve fair and equitable treatment. The point is the tribunal considered the Ukraine's level of development in the course of assessing whether the Ukraine had breached the Claimant's legitimate expectations, "the protection of which is a major concern of the minimum standards of treatment contain in bilateral investment treaties".[342]

336. As regards *X v. Central European Republic*,[343] contrary again to Canada's contention, the tribunal in fact decided the case on the merits, ultimately rejecting the investor's claim for failure to prove the existence of a protected investment. The tribunal prefaced its analysis of the merits with the following:

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[339] UNCITRAL-Ad Hoc, Partial Award (17 March 2006).

[340] See *Ibid,* at para. 291.

[341] ICSID Case No. ARB/00/9, Award (16 September 2003).

[342] *Ibid.* at para. 20.37.

[343] SCC Case 49/2002, Award, 141, reprinted in Stockholm Arbitration Report 2004:1 (2004).

> The Arbitral Tribunal considers that [Mr. X] may, in good faith, have been over-optimistic in interpreting the informal signals he received from his influential personal friends and contacts within the ... Government. He may also not have taken sufficient account that the country was still in a state of transition, in which the Government of public authorities were labouring to develop the newly born democratic system and to create a well-functioning market economy. This involved a lengthy process of planning the route the economy was to follow in the privatisation process of various important sectors of the state-controlled economy.[344]
>
> [Emphasis added]

337. Commentary on this award highlights the fact that the level of development of the host State played a role in the tribunal's interpretation of the treaty and its consideration of the investor's legitimate expectations.[345]

338. As noted above, the content of the customary international law minimum standard of treatment is not universal, nor does the NAFTA Note of Interpretation in respect of Article 1105(1) determine the appropriate content of the minimum standard applicable to a particular dispute. Rather, the treatment required under the minimum standard may be informed by several factors, including the host State's level of development.

339. This is consistent with the contextual approach that NAFTA tribunals have taken to the interpretation of Article 1105(1) and other NAFTA provisions.

3) NAFTA arbitral authorities support the Investor's reading of the minimum standard of treatment

340. In its Memorial, the Investor reviewed the decisions of several NAFTA tribunals to discern the content attributed to the minimum standard of treatment under Article 1105(1).

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[344] *Ibid.* at p. 156.

[345] Observations by Sarah Francois-Poncet and Caroline Mouawad, reprinted in Stockholm Arbitration Report 2004:1 (2004) 168, at p. 172.

341. Canada criticizes the Investor's survey of NAFTA authority, although, notably, no criticism is levelled in respect of the Investor's discussion of the meaning attributed to the minimum standard by non-NAFTA tribunals, aside from Canada's general position that these authorities are irrelevant.[346]

342. Canada's criticisms of this survey of authorities are misplaced and should be rejected.

343. *First*, the majority of Canada's criticisms are in the nature of qualifiers to the above principles of conduct, which principles have been identified by the relevant tribunals on the basis of a particular factual matrix. This, therefore, underscores the Investor's point that the tribunal's analysis of the minimum standard of treatment is deeply contextual.

344. *Second*, the Investor does not allege that a denial of the right to be heard or acting beyond the scope of lawful authority – or indeed conduct amounting to any one of the above principles – is necessarily sufficient to ground a breach of Article 1105.[347] The above list is an illustration of conduct that may, in a given context and on a given set of facts, constitute individually or collectively a breach of the minimum standard of treatment in Article 1105.

345. *Third*, Canada relies upon a British Columbia lower court decision in an effort to impugn the Investor's reliance on the *Metalclad* tribunal's identification of transparency as an element of the minimum standard of treatment. As a preliminary matter, the decision of a Canadian lower court judge does not constitute a binding interpretation of NAFTA. In any event, the *Metalclad* tribunal's view of the transparency requirement in connection with fair and

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[346] See Canada's Counter-Memorial at paras. 689-90.

[347] See Canada's Counter-Memorial, at para. 689.

equitable treatment under Article 1105(1) has been affirmed by subsequent arbitral tribunals with expertise in NAFTA law.[348]

346. In summary, Canada's criticisms of the NAFTA authorities relied upon by the Investor are misplaced and should be rejected.

4) Arbitral authority supports the view that there is no principled difference between the customary international law minimum standard of treatment and international law standard of fair and equitable treatment

347. The contemporary prevailing view among arbitral tribunals is that there is no real principled difference between the customary international law minimum standard of treatment and the international law standard of fair and equitable treatment. The debate concerning the autonomous nature of the fair and equitable treatment standard as contained in many BITs "appears overtaken by the evolution in the latest ICSID decisions."[349]

348. In *Duke Energy Electroquil Partners, et al. v. Republic of Ecuador*,[350] the tribunal found particular guidance in this regard in the decisions of the *Azurix v. Argentine Republic*[351] and *CMS Gas Transmission Co. v. The Argentine Republic*[352] tribunals:

> 335. Second, the Tribunal finds useful guidance in *Azurix v. Argentina*. The Azurix tribunal analyzed Article II.2(a) of the US-Argentina BIT, which is similar to Article II(3)(a) of the BIT and reads

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[348] See *Waste Management II* at para. 98.

[349] *Duke Energy Electroquil Partners, et al. v. Republic of Ecuador,* ICSID Case No. ARB/04/19, Award (18 August 2008) at para. 333.

[350] ICSID Case No. ARB/04/19, Award (18 August 2008).

[351] ICSID Case No. ARB/01/12, Award (14 July 2006).

[352] ICSID Case No. ARB/01/8, Award (12 May 2005).

as follows: "*Investment shall at all times be accorded fair and equitable treatment, shall enjoy the full protection and security and shall in no case be accorded treatment less than required by international law*". It thus sought to determine whether such language entailed obligations additional to those required by the minimum standard of treatment of aliens under customary international law.

336. In proceeding to this determination, it considered the treaty language as a floor and not a ceiling and held that the standards under the treaty and under customary international law were substantially similar:

> *361. [...]. The last sentence ensures that, whichever content is attributed to the other two standards, the treatment accorded to investment will be no less than required by international law. The clause, as drafted, permits to interpret fair and equitable treatment and full protection and security as higher standards than required by international law. The purpose of the third sentence is to set a floor, not a ceiling, in order to avoid a possible interpretation of these standards below what is required by international law. While this conclusion results from the textual analysis of this provision, the Tribunal does not consider that it is of material significance for its application of the standard of fair and equitable treatment to the facts of the case. As it will be explained below, the minimal requirement to satisfy this standard has evolved and the Tribunal considers that its content is substantially similar whether the terms are interpreted in their ordinary meaning, as required by the Vienna Convention, or in accordance with customary international law.* (Footnote omitted, emphasis added)

337. The Tribunal's concerns with this statement and with the conclusion that the standards are essentially the same. This conclusion was also reached by the CMS tribunal in the following terms:

> *284. While the choice between requiring a higher treaty standard and that of equating it with the international minimum standard may have relevance in the context of some disputes, the Tribunal is not persuaded that it is relevant in this case. In fact, the Treaty standard of fair and equitable treatment and its connection with the required stability and predictability of the business environment, founded on solemn legal and contractual commitments, is not different from the international law minimum standard and its evolution under customary law.* (Emphasis added)[353]

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[353] *Ibid.* at paras. 335-337.

349. The tribunal in *Rumeli Telekom S.A. et al. v. Republic of Kazakhstan,*[354] further affirms the strength of this view:

> 609. The parties rightly agree that the fair and equitable treatment standard encompasses *inter alia* the following concrete principles:
>
> – the State must act in a transparent manner;
>
> – the State is obliged to act in good faith;
>
> – the State's conduct cannot be arbitrary, grossly unfair, unjust, idiosyncratic, discriminatory, or lacking in due process;
>
> – the State must respect procedural propriety and due process.
>
> The case law also confirms that to comply with the standard, the State must respect the investor's reasonable and legitimate expectations.
>
> 610. The concept "fair and equitable treatment" is not precisely defined. "*It offers a general point of departure in formulating an argument that the foreign investor has not been well treated by reason of discriminatory or other unfair measures being taken against its interest. It is therefore a concept that depends on the interpretation of specific facts for its context.*" The precise scope of the standard is therefore left to the determination of the Tribunal which "*will have to decide whether in all circumstances the conduct in issue is fair and equitable or unfair and inequitable.*"
>
> 611. The only aspect on which the parties differ is that for Respondent, the concept does not raise the obligation upon Respondent beyond the international minimum standard of protection. The Arbitral Tribunal considers that this precision is more theoretical than real. It shares the view of several ICSID tribunals that the treaty standard of fair and equitable treatment is not materially different from the minimum standard of treatment in customary international law.[355]
>
> [Emphasis in original; footnotes omitted.]

350. On this view, the pertinent question is not whether the host State's conduct reaches a bare minimum floor of treatment, but rather whether, in the context of a particular investment, the host State may objectively be viewed to have treated the

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[354] ICSID Case No. ARB/05/16, Award (29 July 2008).

[355] *Ibid.* at paras. 609-611.

investor in accordance with the established principles underpinning fair and equitable treatment.

351. As the Investor observed in its Memorial,[356] Article 1105(1) may be breached by the following conduct, which reflects a deficit of the principles underpinning fair and equitable treatment:

- A decision that is clearly improper and discreditable;
- A lack of due process, including a denial of the right to be heard, leading to an outcome which offends a sense of judicial propriety;
- Arbitrary, unfair, unjust or idiosyncratic conduct;
- Breach of an investor's legitimate expectations;
- A lack of transparency and candour in an administrative process;
- Acting beyond the scope of lawful authority;
- Failing to act in good faith; and
- failing to ensure a stable and predictable environment for investment.

352. Recent arbitral authority confirms the acceptance of these principles as forming part of the standard of fair and equitable treatment required under both customary international law and international law.

353. Canada attempts to warp and exaggerate certain of these principles in an effort to widen the theoretical gap between the standard of treatment required by customary international law and that required by international law. As noted above, this is a false distinction that has been laid to rest by arbitral authority.

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[356] Chemtura's Memorial at paras. 351 and 364.

354. The Investor has set out in detail in its Memorial Canada's conduct constituting a breach or breaches of its obligations under Article 1105(1).[357] While Canada concedes that it owes certain obligations to the Investor under very basic principles of the fair and equitable treatment standard,[358] it challenges three principles as not forming part of its obligations under Article 1105(1): (a) the obligation of good faith; (b) the obligation to ensure a stable and predictable investment environment; and (c) the obligation to ensure transparency and candour in an administrative process. For the reasons set forth below, Canada's arguments are without merit.

(a) Good faith informs the fair and equitable treatment obligation

355. The Investor observed in its Memorial that a failure to act in good faith may lead to a breach of Article 1105(1).[359]

356. Canada disagrees with this contention, claiming that while good faith is a "principle of international law" it is not a source of substantive obligations and cannot expand the obligations under Article 1105(1).[360] Canada adds that, in any event, it acted "in complete good faith throughout, consistent with its statutory mandate and in the best interests of all stakeholders".[361]

357. Canada's position flies in the face of arbitral authority on this point. As the tribunal in *Waste Management II* stated, "[a] basic obligation of the State under Article 1105(1) is to act in good faith and form, and not deliberately to set out to

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[357] Chemtura's Memorial at paras. 325-448.

[358] See Canada's Counter-Memorial at paras. 692-740, addressed below at Section II.D.

[359] Chemtura's Memorial at para. 357.

[360] Canada's Counter-Memorial at paras 773-74.

[361] Canada's Counter-Memorial at para. 775.

destroy or frustrate the investment by improper means."[362] By way of example the tribunal offered that "a deliberate conspiracy that is to say, a conscious combination of various agencies of government without justification to defeat the purposes of an investment agreement – would constitute a breach of Article 1105(1)."[363]

358. The obligation on Canada to act in good faith *vis-à-vis* an investor and its investment under Article 1105(1) cannot be stated more clearly.

359. Moreover, the evidence, as established in the Investor's Memorial and this Reply, makes it abundantly clear that Canada has failed in this obligation.

360. Beginning with Mr. Worgan's participation in the Special Review, and his subsequent participation in both the REN process and this arbitration as a witness adverse in interest to the Investor, it is clear that Canada has no intention – and has never had any intention – of acting in "good faith and form" *vis-à-vis* the Investor and its investment.

361. Documents which emerged through the documentary discovery process in this arbitration further indicate that the PMRA set out to destroy the Investor's lindane investment. Handwritten mark ups on the original project sheet identifying a shift in approach from a general re-evaluation of lindane to a more limited "Special Review", combined with an internal email written by Ms. Sexsmith in January 1999 addressing the "timing on the demise of lindane," among other documents, demonstrate the absence of good faith from the very beginning.[364]

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[362] *Waste Management II* at para. 138.

[363] *Ibid.*

[364] See Investor Reply Exhibits 40 and 43.

362. An email from Mr. Gwilliam, an independent consultant representing the lindane technical manufacturer (the lindane technical registration having been preserved in the CWA) observed that "Wendy Sexsmith and others in Health Canada would like to see lindane gone for political and personal career reasons."[365]

363. While Ms. Chaffey claims that the Special Review followed a "standard pattern" of pesticide review, the facts lean strongly to the contrary. The claimed "standard pattern" was in fact not a pattern at all; only three active pesticide ingredients had been targeted for Special Reviews from 1995 to 2002, among them lindane.[366] Internal PMRA communications indicate that the PMRA was inclined not to re-instate the lindane for canola use registrations but was aware that it would need a good reason not to do so.[367] By focusing on the occupational exposure assessment, rather than conducting a complete scientific re-evaluation, the PMRA was able to more rapidly "close the door" on the Investor and its lindane product registrations.[368]

364. The Lindane Board of Review ultimately confirmed that the Special Review process was seriously lacking from a procedural fairness perspective. This wholly contradicts Canada's position as regards the fairness of the PRMA's Special Review. Most of the evidence advanced in connection with Canada's position that it acted in good faith *vis-à-vis* the Investor and its investment is brought, however, by Mr. Worgan[369] whose role as lead decision-maker in both the Special

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[365] Investor Reply Exhibit 45.

[366] Worgan Affidavit at para. 45.

[367] Investor Reply Exhibit 47.

[368] Investor Reply Exhibits 47 and 48.

[369] Canada relies on Mr. Worgan's evidence in this regard in connection with its Article 1105(1) and 1110 (police powers) arguments.

Review and REN Processes, as well as this arbitration, as noted above, raises a serious apprehension of bias.

365. Canada's other arguments in respect of its approach to the Investor and its investment are equally as unavailing and cannot be taken seriously in view of the pattern of behind-the-scenes conduct now apparent on the evidentiary record.

(b) Ensuring a stable and predictable investment environment is not the same as a "stand still" obligation

366. In its Memorial, the Investor submits that among those obligations incumbent on host States under the fair and equitable treatment standard is the obligation to ensure a stable and predictable environment for investment.[370]

367. In an effort to dismiss *any* obligation to ensure a stable and predictable investment environment, Canada contorts the Investor's position, claiming that "the Investor asserts a 'standstill' obligation: that Article 1105 prevents a state from changing its laws or regulatory regime as of the time an investment is made."[371]

368. Nowhere in the Investor's Memorial does one find the term "standstill" in connection with the obligation to ensure a stable and predictable investment environment, much less an understanding that the obligation entails preventing changes in the laws of a State made in the normal course.

369. In connection with its "standstill" theory, Canada claims that investors assume the risk of investing in a foreign country and, in any event, international investment law does not recognize legitimate expectations as a source of State obligation,

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[370] Chemtura's Memorial at para. 364.

[371] Canada's Counter-Memorial at para. 781.

pointing to the Annulment Committee decisions in *MTD* and *CMS Gas*[372], which, in Canada's view, "underminc thc TccMcd award".[373]

370. First of all, an investor cannot be assumed to accept the risk of arbitrary or discriminatory treatment, as Canada's own authority confirms.[374]

371. Second, Canada is disingenuous in its presentation of the authorities. The MTD Annulment Committee prefaced its comment at paragraph 67 of their decision (cited by Canada) with the following: "The Committee can appreciate some aspects of these criticisms", referring to the Respondent's position that the "Tecmed programme for good governance" is extreme. The Annulment Committee ultimately, however, found that the tribunal had not exceeded its powers for the following reasons:

> 69. The first is that legitimate expectations generated as a result of the investor's dealings with the competent authorities of the host State may be relevant to the application of the guarantees contained in an investment treaty. This is expressly accepted by the Respondent and in the case-law. The Committee examines below the question of MTD's reasonable expectations derived from the conclusion of the Foreign Investment Contracts.
>
> 70. Secondly, in the Committee's view the formulation of the fair and equitable treatment standard adopted by the Tribunal was that contained in paragraph 113 of the Award, where it said:
>
> > in terms of the BIT, fair and equitable treatment should be understood to be treatment in an even-handed and just manner, conductive to fostering the promotion of foreign investment. Its terms are framed as a pro-active statement – 'to promote,' 'to create,' 'to stimulate' – rather than prescriptions for a passive behaviour of the State or avoidance of prejudicial conduct to the investors.

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[372] Canada's Counter-Memorial at paras. 783-85.

[373] Canada's Counter-Memorial at para. 786.

[374] Canada's Counter-Memorial at para. 781.

> The TECMED dictum was cited in support of this standard, not in substitution of it.
>
> 71. Thirdly, a standard formulated in terms of paragraph 113 is defensible. No doubt the extent to which a State is obliged under the fair and equitable treatment standard to be pro-active is open to debate, but there is more a question of application of the standard than it is of formulation. In any event the emphasis in the Tribunal's formulation is on 'treatment in an even-handed and just manner.' In particular the Tribunal does not express the obligation in such a way as to eliminate the distinction between acts and omissions or to avoid all elements of risk for the investor. That is sufficient for the purposes of Article 52(1)(b) of the ICSID Convention. In short, in articulating this standard there is no indication that the Tribunal committed any excess of powers, let alone that it did so manifestly.[375]
>
> [Emphasis added. Footnotes omitted.]

372. Similarly, Canada only partially and selectively quotes the Annulment Committee's statement in *CMS Gas*, omitting a key element to the tribunal's reasoning, which affirms the view expressed above in *MTD*:

> 89. Article II(2)(c) of the BIT provides that "Each Party shall observe any obligation it may have entered into with regard to investments." It is accepted that by "obligations" is meant legal obligations. Although legitimate expectations might arise by reason of a course of dealing between the investor and the host State, these are not, as such, legal obligations, though they may be relevant to the application of the fair and equitable treatment clause in the BIT.[376]
>
> [Emphasis added. Footnote omitted.]

373. In addition, the tribunals in *Duke Energy* and *Rumeli Telekom* recently confirmed the TecMed tribunal's finding that fair and equitable treatment requires a host State to respect the legitimate expectations of foreign investors in connection with their investment. As the *Duke Energy* tribunal explained:

> 340. The stability of the legal and business environment is directly linked to the investor's justified expectations. The Tribunal

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[375] MTD Annulment Decision at paras. 69-71.

[376] CMS Gas Annulment Decision at para. 89.

> acknowledges that such expectations are an important element of fair and equitable treatment. At the same time, it is mindful of their limitations. To be protected, the investor's expectations must be legitimate and reasonable at the time when the investor makes the investment. The assessment of the reasonableness or legitimacy must take into account all circumstances, including not only the facts surrounding the investment, but also the political, socioeconomic, cultural and historical conditions prevailing in the host State. In additions, such expectations must arise from the conditions that the State offered the investor and the latter must have relied upon them when deciding to invest.[377]

374. Canada next claims that legitimate expectations have not "figured prominently" in Chapter 11 cases. It proceeds, however, to identify three cases in which the investor's legitimate expectations formed part of the tribunal's consideration of whether the host State had breached Article 1105 or another Chapter 11 provision.[378]

375. As Canada observes, the *International Thunderbird* tribunal articulated its understanding of the legitimate expectations principle as follows:

> 147. Having considered recent investment case law and the good faith principle of international customary law, the concept of "legitimate expectations" relates, within the context of the NAFTA framework, to a situation where a Contracting Party's conduct creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct, such that a failure by the NAFTA Party to honour those expectations could cause the investor (or investment) to suffer damages.[379]
>
> [Footnote omitted. Emphasis added.]

376. This is precisely the context of the Investor's investment, whereby the PMRA engaged in a particular course of conduct in connection with the withdrawal of the

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[377] *Duke Energy* at para. 340; see also *Rumeli Telekom* at paras. 173-75.

[378] Canada's Counter-Memorial at paras. 787-89.

[379] *International Thunderbird Gaming Corporation. v. Mexico*, UNCITRAL (NAFTA), Award (26 January 2006) at para. 147.

Investor's lindane seed treatment products, creating a reasonable and justifiable expectation that the PMRA would act consistently with that conduct.

377. The Investor's legitimate and reasonably held expectations in this case do not invoke a guarantee that the regulatory landscape in Canada would remain "frozen",[380] but are rather based in the commitments freely given to the Investor by the PMRA in the course of the CWA process, the Special Review and the REN process in light of the Lindane Board of Review's conclusion that the PMRA had failed to meet the Investor's legitimately held expectations in connection with the Special Review process.

378. Canada weakly relies on what it describes as the "mounting international action" against lindane to dismiss the legitimacy of the Investor's expectations that the Special Review would be conducted properly, on the basis of sound science, and that it would have an ability to participate in and be reasonably informed of the process.

379. Canada proceeds to attack the basis for the Investor's legitimate expectations in connection with four key commitments made by the PMRA in the CWA: (1) the July 1, 2001 deadline for withdrawal of the Investor's lindane product for canola, without prejudice to the planting of treated seed; (2) the urgent timeline for completion of the PMRA's Special Review; (3) non-action against the Investor's remaining (non-canola) lindane product registrations; and (4) expedited review and registration of the Investor's lindane replacement product.[381]

380. In discussing these commitments, Canada intentionally limits the application of the legitimate expectations principle to the specific point in time when an investor first makes its foray into a host State. In this manner, it seeks to turn back the

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[380] Canada, in fact, acknowledges this at paragraph 795 of its Counter-Memorial, but proceeds, nonetheless, to characterize the Investor's position as such in its submissions.

[381] Canada's Counter-Memorial at paras. 800-833.

clock to what the Investor's legitimate expectations could have been at the time it launched its "lindane product line" (which Canada marks at the 1970s), reasoning that at most it could have expected the "conditions permitting the sale of its product in Canada might change."[382]

381. Canada effectively suggests that the Investor can have no expectation at all, reasonable or otherwise, in connection with the regulation of its lindane products investment. This is a gross manipulation of the legitimate expectations principle.

382. Canada also attempts to side-step the Investor's legitimate expectations by relying on the date of the initial meeting among registrants, the PMRA and canola industry stakeholders, *i.e.* 24 November 1998, as the date on which the agreement between registrants and the PMRA (and therefore the PMRA's commitments) crystallized.

383. As demonstrated above, it is clear on the evidence that a final agreement between Chemtura and the PMRA – the CWA - was not reached until October 1999, and this agreement clearly set forth specific commitments which, together with the PMRA's course of conduct in arriving at this agreement, gave rise to the Investor's legitimate expectations as set forth at paragraphs 384-431 of the Investor's Memorial:

- *Sixth Condition*: lindane-treated canola seed could continue to be sold by seed treaters and planted by canola growers after July 1, 2001;

- *Second Condition*: a scientific assessment of lindane would be completed by the end of 2000;

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[382] Canada's Counter-Memorial at para. 800.

- *Fifth Condition*: Chemtura Canada's Lindane Products would continue to be registered on all remaining crops listed on those product labels after the removal of canola/rapeseed, and Chemtura Canada would be entitled to continue to produce Lindane Products for such uses that remained in the label; and

- *Fourth Condition*: the registration of lindane replacement products would be expedited.

384. None of Canada's arguments in connection with the above commitments stand up to scrutiny on the evidence.

385. The Sixth Condition, the provision in the CWA concerning the July 1, 2001 deadline, contemplated that all stocks of Investor's lindane products for use on canola could be used up to and including July 1, 2001 – it said nothing about the continued ability of growers to plant lindane treated seed.

386. The confusion and fear which spread rapidly in the canola industry following conclusion of the CWA was a direct result of the PMRA's abrupt about-face in connection with this condition, backed by threats of fines to keep canola growers and seed treaters in line. The evidence further shows that there is and was no "common" understanding among growers that these fines are not generally enforced.

387. The Second Condition, the CWA provision in connection with the Special Review, clearly states that the "PMRA and the EPA shall coordinate and collaborate on the timely review and re-evaluation" of lindane "and provide a scientific assessment of lindane by the end of 2000." (emphasis added) The urgency in the timely completion of the Special Review is clear on the face of this condition. The fact that the PMRA did not complete its Review until October 2001, almost a year overdue, is undisputed – and cannot possibly be characterized as arriving "in good time".

388. Despite Canada's arguments that the PMRA was delayed because its "work-sharing approach with the EPA"[383], the evidence demonstrates that the PMRA went its own way, ignoring the EPA's work on the re-evaluation.

389. Canada's suggestion that the PMRA's conduct – and in particular the flaws in both the process and results of the Special Review – may be excused or justified after the fact so as to vitiate any legitimate expectation of a timely and sound scientific review is utterly devoid of merit.

390. The Fifth Condition of the CWA clearly permitted the continued registration of the Investor's lindane products for non-canola uses. Whilst in the normal course under the relevant statutory regime, the PMRA could seek the suspension of any product where the safety of the product is no longer acceptable, notwithstanding the CWA, the Investor is entitled to reasonably expect that such a determination will not be made arbitrarily, particularly where a specific commitment is made not to call for the registration's suspension. This expectation was reinforced by the CWA provision requiring a "scientific assessment" of lindane.

391. The evidence demonstrates that the PMRA suspended all of the Investor's remaining lindane product registrations on the basis of a deeply flawed review; and even though the Investor complied with the PMRA's stipulated conditions for a gradual phase out of its remaining lindane product registrations, the PMRA suspended the registration peremptorily.

392. Finally, consistent with the Fourth Condition of the CWA, the expectation that the Investor's lindane replacement product Gaucho CS FL would be treated on the same footing as other registrants' products in the PMRA's expedited review of lindane replacements is hardly shocking. The Investor had the most,

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[383] Canada's Counter-Memorial at para. 818.

commercially, to lose from the withdrawal of lindane for canola seed treatment in Canada.

393. Canada's efforts to confuse the nature of the products made available by the Investor during the relevant period and its related contention that the Investor had a first-to-market advantage are belied by the evidence and fail to demonstrate the Investor's expectations in connection with this commitment were anything but reasonable and legitimate.

(c) The Investor does not assert a requirement of "total transparency"

394. In the same vein as its arguments in respect of the obligation to ensure a stable and predictable investment environment, Canada purposely exaggerates the transparency requirement under Article 1105(1) in order to avoid the weight of any obligations in this regard.

395. As with Canada's "standstill" theory, the Investor has not in fact suggested that Article 1105(1) imposes a requirement of "total transparency".

396. Canada's "total transparency" theory emerges from an incorrect reading of the *TecMed* tribunal's award and a complete misinterpretation of the Claimant's arguments. As previously noted, this award has continued to be cited with approval by arbitral tribunals and cannot simply be set aside because it was not rendered by a NAFTA tribunal.

397. Canada's rejection of transparency as an element of the standard of treatment required under Article 1105(1) is not supported by its sole reliance on a British Columbia lower court judge's rejection of transparency as an element of the fair and equitable treatment standard under Article 1105(1). As noted above, the obligation on Canada under Article 1105(1) to ensure transparency in the administrative process was affirmed by the tribunal in *Waste Management II.*

398. Following its review of authorities, the *Waste Management II* tribunal concluded with a summary of the obligations imposed by Article 1105(1):

> [...] Taken together, the *S.D. Myers, Mondev, ADF* and *Loewen* cases suggest that the minimum standard of treatment of fair and equitable treatment is infringed by conduct attributable to the State and harmful to the claimant if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic, is discriminatory and exposes the claimant to sectional or racial prejudice, or involves a lack of due process leading to an outcome which offends judicial propriety – as might be the case with a manifest failure of natural justice in judicial proceedings or a complete lack of transparency and candour in an administrative process. In applying this standard it is relevant that the treatment is in breach of representations made by the host State which were reasonably relied on by the claimant.[384]
>
> [Emphasis added]

399. The administrative process to which the Investor and its investment were subjected by the PMRA was anything but transparent or candid. This was precisely the finding of the Lindane Board of Review:

> 108. With the foregoing in mind, the Board notes that it was not PMRA, but rather CIEL that brought the issue of occupational risk to the parties' attention. Moreover, the Board does not believe that occupational risk was discussed to any significant extent, and further, was not presented as a fundamental aspect of PMRA's Special Review until the risk assessment was completed in October 2001.
>
> [...]
>
> 112. ... , the Board is of the view that once PMRA knew its focus in the Special Review was going to be on occupational risk, it should have advised Crompton, knowing that the Special Review announcement made no mention of occupational risk, and knowing that all communications it had with Crompton were primarily in respect of environmental concerns.
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> 113. Although the process may be different in respect of new evaluations as compared to re-evaluations (including Special Reviews), the Board feels that PMRA does have an obligation to advise the registrant of the focus of its inquiry and review. Proceeding in this manner could have led to a more robust scientific inquiry and assessment.

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[384] *Waste Management II* at para. 98.

400. The lack of candour in the PMRA's dealings with the Investor is further demonstrated by the PMRA's internal communications produced in the course of the discovery process which reveal the PMRA's covert intention to bring about the "demise of lindane".[385]

401. On the totality of the evidence, it is clear that Canada has breached its obligations under Article 1105(1).

5) **In the alternative, the content of the customary International Law minimum standard has evolved with the concordance of BITs**

402. In the alternative, should the Tribunal find as a matter of principle that there is a difference between the customary international law minimum standard of treatment and the international law standard of fair and equitable treatment, and that the customary international law minimum standard necessarily imposes a lesser obligation on host States, the Investor submits that the customary international law minimum standard has evolved with the concordance of thousands of BITs which provide for "fair and equitable treatment" as this term has been consistently interpreted in arbitral authorities.

(d) The Minimum Standard of Treatment is an Evolving Standard

403. The disputing Parties agree that the minimum standard is evolutionary.[386] The tribunal in *ADF Group Inc. v. United States*[387] succinctly summarized the position as follows: "both customary international law and the minimum standard of treatment of aliens it incorporates are constantly in a process of development."[388]

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[385] Investor Reply Exhibit 55.

[386] See Memorial at paras. 337-341; Canada's Counter-Memorial at paras. 687.

[387] ICSID Case No. ARB(AF) 10011, Award (January 9, 2003).

[388] *ADF* at para. 179.

Other NAFTA tribunals have similarly recognized that customary international law, including the minimum standard of treatment, evolves over time:

> Inasmuch as NAFTA Tribunals have adopted their historical-based approach, all of them have stated, one way or another, that the standard must not be understood in a static manner. As to the components which have guided and shaped the direction of the evolution of the standard, no clear consensus has emerged. It would appear that, within NAFTA, the concept of an evolutionary approach has by now been generally accepted, but the precise contours of defining the normative guidelines for the evolutionary process and the borders have so far received limited attention.[389]

404. It is also widely recognized that there is no set period of time within which a customary international law rule may evolve or emerge.[390] Rather, the duration of practice required to establish a new rule or the evolution of an existing rule may depend in part on the density of international relations in a given area.[391]

405. Two elements are required to establish a new rule or the evolution of an existing customary international law rule: general and consistent practice and *opinio juris*.

(e) The requirements for the evolution of a customary international law rule are met

(i) General and Consistent Practice

406. The requirement for consistency of a practice is flexible. A practice need not be universal, but must appear to be generally accepted among States.[392] This appears

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[389] Dolzer and von Walter, "Fair and Equitable treatment – Lines of Jurisprudence on Customary law" at p. 113. See also e.g. *UPS v. Canada* at para. 84.

[390] See Ian Brownlie, *Public International Law*, 6th ed. (OUP, 2003) at p. 7.

[391] See Cay Congyan, "International Investment Treaties and the Formation, Application and Transformation of Customary International Law Rules" (2008) 7:3 *Chinese Journal of International law* 659 at p. 661.

[392] Brownlie, *Principles of Public International Law*, at p. 8, citing *Fisheries Jurisdictions Case (United Kingdom v. Iceland)*, ICJ Reports (1974) 3 at 23-6, in which the ICJ stated that a practice "which appears now to be generally accepted" and to "an increasing and widespread acceptance of the concept of preferential rights for coastal states" in a situation of special dependence on coastal fisheries.

to be the case in respect of the well over 2,200 BITs which almost universally provide for "fair and equitable treatment".

407. In a paper presented to the American Society of International Law in 2004, Judge Schwebel suggested that the concordance of treaty standards of treatment has reshaped customary international law:

> [c]ustomary international law governing the treatment of foreign investment has been reshaped to embody the principles of law found in more than two thousand concordant bilateral investment treaties. With the conclusion of such a cascade of parallel treaties, the international community has vaulted over the traditional divide between capital-exporting and capital-importing states and fashioned an essentially unified law of foreign investment.[393]

408. Judge Schwebel observed that the process by which treaty provisions may "seep into general international law" and thereby bind the international community as a whole is a real process known to international law, citing the ILC's 1960 report on treaties:

> An international convention admittedly establishes rules binding the contracting States only, and based on reciprocity; but it must be remembered that these rules become generalized through the conclusion of other similar conventions containing identical or similar provisions.[394] (emphasis added)

409. In Judge Schwebel's view, the vast number of BITs known to date is a contemporary exemplar of this process.[395] The result being that "when BITs

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[393] Stephen Schwebel, "The Influence of Bilateral Investment Treaties on Customary International Law" in *Investor-State Disputes and the Development of International Law*, American Society of International Law: Proceedings of the Annual Meeting (2004), at p. 27. See also Stephen Schwebel, "The Reshaping of the International Law of Foreign Investment by Concordant Bilateral Investment Treaties" in S. Charnovitz, D. Steger and P. van den Bossche, eds., *Law in the Service of the Human Dignity* (Cambridge University Press, 2008) 241 at p. 244.

[394] Report of the International Law Commission covering the work of its twelfth session, 2 Yearbook of the International Law Commission 145, UN Doc A/4425 (1960).

[395] See Schwebel, "The Reshaping of the International Law of Foreign Investment by Concordant Bilateral Investment Treaties" at p. 245.

prescribe treating the foreign investor in accordance with customary international law, they should be understood to mean the standard of international law embodied in the terms of some two thousand concordant BITs. The minimum standard of international law is the contemporary standard."[396]

410. Other authors have also commented on the convergence in the interpretation of treaty standards, referencing in particular the common pattern in consideration of the investor's legitimate expectations with respect to covered investments:

> The pattern we have noted is that of an apparent convergence in the interpretation of the minimum (or 'fair and equitable') and 'non-discrimination' standards of treatment found in most investment protection treaties, the multilateral Energy Charter Treaty, and the NAFTA. The convergence appears to have been based upon a tribunal's analysis of the legitimacy of the expectations enjoyed by an investor with respect to investments covered under an investment protection treaty.[397]
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> [Emphasis added]

411. Professor Francisco Orrego Vicuña recently observed that the concept of legitimate expectations, in particular, is influencing the law on foreign investment and, through this process, the standards of treatment are becoming "global in their application":

> It is first important to note that this concept has not only permeated the work of international administrative tribunals but also that of a number of other tribunals dealing in particular with foreign investment. The case law of ICSID and NAFTA shows an increasing concern for the right interpretation of the 'fair and equitable' treatment and other standards of substance embodied in bilateral investment treaties (BITs) and similar instruments. Although there are wide variations in the reasoning of tribunals on this question, the basic underlying premise seems to be that what is reasonable and fair on the part of states and investors alike ought to prevail, but what is abusive ought to be controlled. Next, it is also

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[396] Schwebel, "The Influence of Bilateral Investment Treaties on Customary International Law" at pp. 29-30.

[397] Todd Weiler and Ian Laird, "Standards of Treatment" in P. Muchlinski, F. Ortino and C. Schreuer, *The Oxford Handbook of International Investment Law* (OUP, 2008) 259, at p. 260.

> evident that the process of protecting foreign investment is becoming global through numerous BITs. To this extent the standards of treatment become global in their application. This phenomenon is enhanced by other concurrent developments, most notably the enactment of broad multilateral conventions such as the Energy Charter Treaty, or the application of the most-favoured nation clause to both procedural arrangements and substantive treatment accorded to foreign investors. [...].[398]
>
> [Emphasis added; footnotes omitted]

412. The concordance of treaties and the impact of this practice on the content of customary international law rules, including the minimum standard of treatment, has been considered as well by arbitral tribunals tasked with interpreting treaty standards. The tribunal in *Mondev* thus observed that:

> The vast number of bilateral and regional investment treaties (more than 2,000) almost uniformly provide for fair and equitable treatment of foreign investments and largely provide for full security and protection of investments. Investment treaties run between North and South, and East and West, and between States in these spheres inter se. On a remarkably widespread basis, States have repeatedly obliged themselves to accord foreign investment such treatment. In the Tribunal's view, such a body of concordant practice will necessarily have influenced the content of rules governing the treatment of foreign investment in current international law. [...][399]

413. The requirements of general practice appear to be satisfied by the concordance of treaties entered into by States around the world which almost universally provide for a common obligation of fair and equitable treatment.

(ii) *Opinio Juris*

414. *Opinio juris* requires that States accept a practice as obligatory or binding, and may be assumed on the basis of general practice or consensus in the literature and

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[398] Francisco Orrego Vicuña, "From Preston to Prescott: Globalizing Legitimate Expectation" in S. Charnovitz, D. Steger and P. van den Bossche, eds., *Law in the Service of the Human Dignity* (Cambridge University Press, 2008) 301 at pp. 309-10.

[399] *Mondev International v. United States*, ICSID Case No. ARB(AF)/99/2, Award (11 October 2002), at para. 117.

decisions of international tribunals.[400] As noted above, that practice need not be universal.

415. The fact that the NAFTA Parties reject[401] the evolution of the customary international law minimum standard of treatment in accordance with the concordance of BITs is not dispositive of the rule's actual evolution.[402] The near universality of expression of the fair and equitable treatment standard in the thousands of BITs is a strong indication that States around the world, developed and developing alike, consider themselves to be bound by an obligation to treat foreign investors and (where and as defined) their investments fairly and equitably.

416. The interpretation of this obligation by arbitral tribunals, in accordance with fundamental principles of treaty interpretation, as comprising a set of principles which may be flexibly yet objectively applied in a given context, without reference to a floor or ceiling of conduct, is further evidence of States' intention to be bound by an objective but flexible standard of treatment.

417. Accordingly, the Investor submits that the fair and equitable treatment obligation within the minimum standard of treatment under customary international law has evolved to attain the same meaning as the standard of fair and equitable treatment provided for in thousands of BITs, as interpreted by the vast majority of BIT tribunals and, for the reasons articulated herein and in the Investor's Memorial, Canada has breached this standard through the PMRA's conduct.

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[400] Brownlie, *Principles of Public International Law*, at p. 8. The issue is not, as Canada suggests, whether arbitral authority constitutes a source of State practice, but that such authority may illuminate State practice. Canada's Counter-Memorial at para. 744.

[401] See Canada's Counter-Memorial at paras. 756-57.

[402] Brownlie, *Principles of Public International Law*, at p. 11. "Persistent objection" does not preclude a customary rule from forming or evolving. The NAFTA Parties' objection is in any event one of form, as the TC Note of Interpretation does not establish the content of the minimum standard. The evolution claimed here relates to the minimum standard's content.

C. The Threshold for Breach of Article 1105(1)

1) The threshold for breach of Article 1105(1) is neither high nor low

418. The Investor submits that the standard of proof required to demonstrate a breach of Article 1105(1) is neither higher nor lower than the proof required to demonstrate a breach of any other treaty standard. There is simply no basis in NAFTA to support a contrary view.

419. Canada nevertheless submits that the threshold for finding a breach of Article 1105(1) is very high. Its submissions in this regard suffer from the same conceptual failings as its submissions in respect of the interpretation and content of the international minimum standard generally in that it attempts to identify a single point in space and time which constitutes the minimum standard – a standard that is pitched so low that no conduct could possibly be considered breaching conduct.

420. In any event, the standard of proof applicable to a breach of the fair and equitable treatment obligation is not settled in arbitral authority. It is therefore open to the Tribunal to determine the appropriate standard.

421. In *Tokios Tokelés v. Ukraine*,[403] the tribunal was asked by the respondent State to apply a high threshold of proof to the claimant's allegation of breach of fair and equitable treatment provision in the BIT between Lithuania and Ukraine. In considering the proper standard of proof, the tribunal acknowledged the debate concerning the level of proof required to demonstrate a breach of this obligation, ultimately rejecting the view that a higher threshold applies:

> 124. [...]. As regards the standard, three possibilities have attracted support. First, the usual standard, which requires the party making an assertion to persuade the decision-maker that it is more likely than not to

[403] ICSID Case No. ARB/02/18, Award (26 July 2007).

> be true. Second, that where the dispute concerns an allegation against a person or body in high authority the burden may be lower, simply because direct proof is likely to be hard to find. Third, that in such a situation, the standard is higher than the balance of probabilities. As to these, the logic of the second appears questionable, for its consequence is that the person who makes the allegation may be entitled to succeed even if it is less likely than not that the allegation is true. Certainly, any sensible tribunal considering an allegation of this kind will recognize that the need to rely on circumstantial or secondary evidence does not necessarily tell against it, but this does not dispense with the need for evidence of one kind or another sufficient to take the proof over the barrier. As for the third possibility, which at the other extreme requires proof of more than the balance of probabilities where an allegation of gross misconduct is made against a highly placed person, here also there are serious logical problems. It surely cannot be the case that evidentiary requirements can be heightened purely on the grounds of deference or comity or otherwise. And if it is said that this is an example of the common-sense principle that an inherently unlikely allegation requires stronger than usual supporting evidence before it is accepted, contemporary experience shows how unrealistic it can be to assume that important persons will not behave badly. We make no assumptions of this kind, one way or the other, in the present case, and shall approach the issues on the basis that in order to prove its case on the existence and casual relevance of a nayizd the Claimant must show that its assertion is more likely than not to be true.[404]

422. The Investor submits that the approach taken by the tribunal in *Tokios Tokelés* is appropriate in connection with NAFTA Article 1105(1).

D. Canada Breached the Requirements of Article 1105(1)

423. In its Memorial, the Investor identified the conduct engaged in by the PMRA that, taken in its totality, constitutes a breach of Canada's obligations under Article 1105(1).[405] The conduct thus identified constitutes a breach of Article 1105(1) whether the content of the obligation includes those principles articulated by the vast majority of arbitral tribunals or a narrower set of principles, as Canada maintains.

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[404] *Ibid.* at para. 124.

[405] Chemtura's Memorial at paras. 366-448.

424. Contrary to Canada's submission, the PMRA acted neither properly nor creditably in connection with the withdrawal of lindane for use on canola.[406]

425. As established above, the PMRA was not simply a facilitator of the CWA process, but rather was a driver of that process.

426. Canada's suggestion therefore that it was open to Chemtura to simply refuse to negotiate a withdrawal agreement is specious. Such an option was never open nor presented to the Investor. It is evident through contemporaneous documents produced by the PMRA that it was setting the scene for the removal of lindane for canola use from the market long before an agreement was reached with Chemtura, and the Investor would have only been subjected to further losses if it refused to comply with the PMRA's withdrawal process.[407]

427. This was borne out when the Investor attempted to exercise its "option" in 2001 not to withdraw its remaining lindane registrations and the PMRA proceeded to cancel all of its remaining registrations without the gradual phase-out granted to other registrations.

428. Canada attempts to characterize the grounds for this arbitration as "uniquely within the mandate of judicial review administrative action conferred on the Federal Court of Canada."[408] Yet, as Canada itself points out, the Investor pursued relief through the Federal Court, ultimately to no avail. This was because after having obtained a writ *mandamus* compelling the Minister to appoint an independent Board to review the PMRA's conduct and conclusions in the Special Review, and receiving affirmation of its complaints by that Board, the PMRA

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[406] See Canada's Counter-Memorial at paras. 692-715.

[407] See e.g., Investor Reply Exhibit 17.

[408] See Canada's Counter-Memorial at para. 701.

ignored many of the Board's conclusions and engaged in what has proved to be a sham re-evaluation process.

429. The totality of the PMRA's conduct rises to the level of an international wrong for which the Investor's only effective remedy now is damages.

430. Canada's arguments to the effect that the Special Review process was proper and creditable are simply untenable.[409] Moreover, the expert report procured from Dr. Costa for the purpose of this arbitration is unpersuasive in the light of the *independent* Lindane Review Board's assessment of the PRMA's conduct.

431. The PMRA's failures, as observed by the Lindane Board of Review, cannot be shored up in an *ex post facto* exercise by referencing (and mischaracterizing) EPA's 2002 and 2006 decisions in connection with lindane.[410] As Messrs. Aidala and Johnson have explained, Canada's position in respect of EPA's findings on lindane is simply incorrect.[411]

432. Canada's arguments in connection with the PMRA's conduct outside the scope of its authority are similarly unpersuasive.[412] There was simply no authority in the PMRA's governing statute and regulations to proceed as it did with the CWA process.

433. Canada's contention that the PMRA acted fairly and treated all registrants equally is also unconvincing.[413] As Mr. Thomson has explained, the Investor was not simply a registrant among equals, it was by far the most important vendor of

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[409] See Canada's Counter-Memorial at paras. 704-715.

[410] See Canada's Counter-Memorial at para. 707.

[411] See Second Johnson Statement at paras 3-21; Second Aidala Expert Report at paras 5-33.

[412] See Canada's Counter-Memorial at paras. 716-721.

[413] See Canada's Counter-Memorial at paras. 722-727.

lindane products for canola seed treatment in Canada, with [***] of the entire market.

434. The Investor did not benefit in equal measure from any flexibility showed by the PMRA.[414] Rather, it suffered disproportionately from the PMRA's about-face in connection with the cessation by July 1, 2001 not only of sales of treated seed but the planting of treated seed, from the PMRA's delay in issuing the results of the Special Review; from the PMRA's failure to conduct a proper and complete assessment of lindane; from the PMRA's suspension of its lindane product registrations without a right of gradual phase-out as was provided to toher registrants; and from the PMRA's refusal to expedite its replacement product Gaucho CS FL.

435. Finally, Canada attempts to reconstruct the withdrawal process as having afforded due process to the Investor, ironically falling back on the fact that the Investor was forced to repeatedly revert to the Federal Court in order to seek orders compelling the PMRA to fulfill its statutory mandate.

436. One of the Lindane Board of Review's key findings, however, was that the Investor had been denied fairness of process and an adequate opportunity to be heard in the course of the PMRA's Special Review. Canada attempts to circumvent this fact by identifying correspondence exchanged between the PMRA and the Investor *before* the conclusion of the CWA in October 1999.[415] This shell game in respect of the date on which the PMRA's commitments and obligations under the CWA crystallized is unconvincing and disposed of in favour of the Investor on the evidence in this arbitration.

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[414] See Canada's Counter-Memorial at para. 723.

[415] See Canada's Counter-Memorial at para. 729, fn 831.

437. Due process issues have, moreover, continued long after the Special Review and the Board of Review proceedings. Mr. Worgan's dual role in the REN process and as an witness adverse in interest to the Investor in this arbitration, having also participate in the flawed underlying review, creates a strong apprehension of bias by any standard.

438. Accordingly, by any standard, Canada has breached its obligations to the Investor under Article 1105(1).

III. Canada Failed to Meet the Standard of Treatment Available to the Investor under Article 1103

439. *Summary*: In the alternative to its above claim under Article 1105(1), the Investor is entitled, by operation of the most-favoured-nation ("MFN") clause in Article 1103, to the benefit of more favourable substantive protection in third party treaties concluded by Canada containing fair and equitable treatment clauses which are not limited by the customary international law minimum standard of treatment.

440. Canada contests this position on several grounds, all of which are without merit. Its central argument, that a fact comparator is necessary in order to trigger the operation of Article 1103, is contradicted by the weight of arbitral authority on the operation of MFN clauses in the investment treaty context.

A. Canada's objection on grounds of consent is misplaced

441. Canada asserts that the Article 1103 claim advanced by the Investor in its Memorial is "new" and therefore Canada has not consented to its arbitration. This argument is spurious and should be rejected.

442. Article 1122(1) of NAFTA provides that a "Party consents to the submission of a claim to arbitration in accordance with the procedures set out in this Agreement". The procedure for the submission of a claim to arbitration under Chapter 11 is set forth in Articles 1116 through 1121.

443. NAFTA tribunals have generally construed the consent to arbitrate required by Article 1122 in broad terms. The Tribunal in *Methanex v. United States* set out the necessary requirements in order to establish that "consent to arbitrate" is valid and effective:

> This Tribunal is faced with the same issue of whether the necessary consensual base for its jurisdiction is present. ... In order to establish the necessary consent to arbitration, it is sufficient to show i) that Chapter 11 applies in the first place, i.e. that the requirements of Article 1101 are met, and ii) that a claim has been brought by a claimant investor in accordance with Articles 1116 or 1117 (and that all pre-conditions and formalities required under Articles 1118-1121 are satisfied). Where these requirements are met by a claimant, Article 1122 is satisfied; and the NAFTA party's consent to arbitration is established.[416]
>
> [Emphasis added]

444. In *Ethyl Corporation v. Canada*, Canada made a similar attempt – and failed – to narrow the scope of its consent to arbitrate under NAFTA. More particularly, Canada took the position that its consent to arbitrate under Chapter 11 was conditioned absolutely on the fulfillment of specified procedural requirements at a given time, and that the investor's claim did not fall within the scope of its consent to arbitrate. Ethyl had submitted its Notice of Intent before the challenged law had been passed in Parliament, and then submitted its claim before the law had received Royal Assent. Canada consequently argued that the Statement of Claim asserted a "new" claim as it relied upon the new Act whereas the Notice of Intent had relied upon the Bill in question.

445. In rejecting Canada's position, the tribunal observed in regard to Article 1122 that "it is important to distinguish between jurisdictional provisions, i.e. the limits set to the authority of this Tribunal to act at all on the merits of the dispute, and procedural rules that must be satisfied by investor, but the failure to satisfy which

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[416] *Methanex Corp. (Can.) v. United States*, (UNCITRAL), Preliminary Award on Jurisdiction and Admissibility, (7 August 2002) at para. 120.

results not in an absence of jurisdiction *ab initio*...".[417] The tribunal further stated that:

> [t]he revised and expanded terminology in the Statement of Claim is not intrinsically of such great significance. This is particularly so, bearing in mind that Art. 3 of the UNCITRAL Arbitration Rules, which in this regard remains unmodified by anything in Part B, and which prescribes the form of a notice of arbitration, requires (in (3)(e)) simply that such notice include 'The general nature of the claim and an indication of the amount involved, if any'. By contrast, Art. 18 of those Rules, likewise unmodified by Part B, requires (at (1)(b) and (c)) that a statement of claim set forth a 'statement of facts supporting the claim' and the 'points in issue'. Thus a greater elaboration of detail in the Statement of Claim is permissible, if not, indeed, required.
>
> The nub of the matter, however, is that the specific inclusion of references to the MMT Act and the product Greenburn in the Statement of Claim is not, as the Tribunal sees it, to be viewed as adding "new claims", but rather, if anything, as amending the claim previously described in the Notice of Arbitration. Art. 20 of the UNCITRAL Arbitration Rules, which part B does not modify, provides that claimant "may" so amend "unless the arbitral tribunal considers it inappropriate to allow such amendment having regard to the delay in making it or prejudice to the other party or any other circumstances." An amendment of Ethyl's claim, if one there has been, made as early as in the Statement of Claim hardly can be regarded as involving any "delay". ...[418]
>
> [Emphasis added]

446. In *Pope & Talbot Inc. v. Canada*, Canada unsuccessfully brought a motion requesting that the tribunal decline to address the issue raised by the investor in its memorial concerning implementation of the "super fee" under the Softwood Lumber Agreement ("SLA"). Canada argued that the investor failed to take certain procedural steps in respect of this claim, including seeking consultation on

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[417] *Ethyl Corporation v. Canada*, UNCITRAL (NAFTA), Award on Jurisdiction (24 June 1998) at para. 58.

[418] *Ibid.* at paras. 94-95.

the issue pursuant to Article 1118, and notifying its super fee claim in the Notice of Intent.[419]

447. In an Article 1128 submission, the United States also argued that a precondition to consent to arbitration was the satisfaction of all procedural prerequisites, and that a new claim could not be permitted unless it is properly within the tribunal's jurisdiction. The United States asserted that the claim regarding the creation of the super fee under the SLA was outside the jurisdiction of the tribunal, as it had not been pleaded in the Notice of Intent or in the Statement of Claim.[420]

448. The investor, for its part, contested the suggestion that the consent of the NAFTA Parties to arbitration goes only "to the claim as it is expressed at the time of submission of the claim".[421]

449. The tribunal concluded that the investor's contention regarding the super fee did not constitute a new claim. Rather, it simply related to a new element of the overall regime at issue. This finding was predicated in part on the broad manner in which the original claim was pleaded. The tribunal further recalled that the *Ethyl* tribunal had found that "strict adherence" to the procedural requirements set out in Articles 1116-1122 is "not necessarily a precondition to arbitrability, but must be analyzed within the context of the objective of NAFTA in establishing investment dispute arbitration in the first place."[422] The tribunal cautioned against

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[419] *Pope & Talbot Inc. (U.S.) v. Canada*, UNCITRAL (NAFTA), Award Concerning the Motion by Government of Canada Respecting the Claim based upon Imposition of the "Super fee" (7 August 2000) at para. 8.

[420] *Ibid.* at para. 18.

[421] *Ibid.* at para. 21.

[422] *Ibid.* at para. 26.

the application of such procedural conditions with "draconian zeal", in a manner that would defeat the objects of the NAFTA.[423]

450. Similarly, in *ADF Group v. United States*, the United States unsuccessfully argued that the investor's failure to include *any* reference to its claim under Article 1103 in the Notice of Intent resulted in the United States' consent to arbitrate being limited so as to preclude its consent to such a claim. In the absence of its consent to arbitrate, the United States reasoned that the tribunal did not have jurisdiction to consider the Article 1103 claim. The United States further argued that the phrase "in accordance with the procedures set out in this Agreement" was intended to be a condition on the effective or valid consent of a NAFTA Party to the submission of claims to arbitration.

451. The tribunal rejected the United States' arguments, reasoning that when read together Articles 1121 and 1122 indicate that the standing consent of a NAFTA Party is conjoined with the consent of a disputing investor in a particular case when the procedural requirements are met. The tribunal disagreed that the procedures referred to in Article 1122 should be interpreted as delimiting the "detailed boundaries of the consent given by either the disputing party or the disputing investor".[424]

452. Rather, the tribunal held, consistent with *Ethyl* and *Pope & Talbot*, that consent to arbitrate was not conditional upon the investor's identification of an "exhaustive list" of relevant NAFTA provisions:

> Turning back to Article 1119(2), we observe that the notice of intention to submit to arbitration should specify not only "the provisions of [NAFTA] alleged to have been breached" but also "any other relevant procedures [of NAFTA]." Which provisions of NAFTA may be regarded as also "relevant" would depend on, among other things, what arguments

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[423] *Ibid.*

[424] *ADF Group*, at para. 133.

> are subsequently developed to sustain the legal claims made. We find it difficult to conclude that failure on the part of the investor to set out an exhaustive list of "other relevant provisions" in its Notice of Intention to Submit a Claim to Arbitration must result in the loss of jurisdiction to consider and rely upon any unlisted but pertinent NAFTA provision in the process of resolving the dispute.[425]
>
> [Emphasis added]

453. These decisions confirm that a disputing party's full argument in respect of a particular claim need not be completely developed in the Notice of Intent or Notice of Arbitration in order for valid consent to be given to arbitrate that claim. In this case, the Investor notified its intention in its Notices of Intent and Notices of Arbitration to claim breach of Canada's obligations under Article 1103. The Investor was not required to plead the full measure of its MFN argument at that early stage. To the extent the MFN argument contained in the Investor's Memorial may be viewed as a "new" claim (which is denied), such claim is timely presented at the opening of written pleadings and poses no prejudice to Canada in this arbitration. Accordingly, Canada's objection on the ground of consent should be rejected.

B. Canada's interpretation of Article 1103 is misguided

1) Article 1103 offers access to post-NAFTA treaty protections

454. NAFTA Article 1103 contains three conditions for its application. On a plain reading, these conditions do not transform that provision into anything other than an MFN clause which, in principle, entitles an investor to the benefit of more favourable substantive guarantees in a third treaty.

455. It is recalled that Article 1103 provides as follows:

> **Article 1103: Most-Favored-Nation Treatment**

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[425] *Ibid.* at para. 134.

> 1. Each Party shall accord to investors of another Party treatment no less favorable than that it accords, in like circumstances, to investors of any other Party or of a non-Party with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments.
>
> 2. Each Party shall accord to investments of investors of another Party treatment no less favorable than that it accords, in like circumstances, to investments of investors of any other Party or of a non-Party with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments.

456. Canada maintains that Article 1103 is limited in scope and therefore also limited in reach so as to preclude access to the benefit of more favourable treaty protections. This position is untenable on the plain language of NAFTA and is inconsistent with the manner in which MFN clauses are commonly understood to operate.

457. Canada's position that the cases relied upon by the Investor are inapposite because they deal with broader MFN language[426] misses the point. The conditions in Article 1103 do not serve to limit the basic operation of Article 1103 as an MFN clause or to limit the source of treatment; they merely prescribe, consistent with the *ejusdem generis* rule, the particular conditions for triggering the operation of Article 1103.

458. Canada begins its interpretative assessment of Article 1103 by invoking the principle articulated in Article 31 of the *Vienna Convention*, to the effect that Article 1103 must be interpreted "*in good faith in accordance with the ordinary meaning to be given to the terms of the treaty* ***in their context and in light of its object and purpose***" (emphasis added).

459. Canada neglects, however, to consider both the context and purpose of Article 1103. Proper application of Article 31 leads to precisely the opposite conclusion as regards the operation of Article 1103.

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[426] See Canada's Counter-Memorial at para. 867.

460. Article 1103 must be read in its proper context, with the limitations set forth in NAFTA Annex IV, and in light of its object and purpose, *i.e.* as an MFN clause.[427]

461. Annex IV of NAFTA states as follows:

> Schedule of Canada
>
> Canada takes an exception to Article 1103 for treatment accorded under all bilateral or multilateral international agreements in force or signed prior to the date of entry into force of this Agreement.
>
> For international agreements in force or signed after the date of entry into force of this Agreement, Canada takes an exception to Article 1103 for treatment accorded under those agreements involving:
>
> (a) aviation;
>
> (b) fisheries;
>
> (c) maritime matters, including salvage; or
>
> (d) telecommunications transport networks and telecommunications transport services (this exception does not apply to measures covered by Chapter Thirteen (Telecommunications)).
>
> With respect to state measures not yet set out in Annex I pursuant to Article 1108(2), Canada takes an exception to Article 1103 for international agreements signed within two years of the date of entry into force of this Agreement.
>
> For greater certainty, Article 1103 does not apply to any current or future foreign aid program to promote economic development, such as those governed by the Energy Economic Cooperation Program with Central America and the Caribbean (Pacto de San José) and the OECD Agreement on Export Credits.

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[427] See *e.g. MTD v. Chile*, ICSID Case No. ARB/01/7, Award (25 May 2004) at paras. 103-104 (The Tribunal observed that the parties to the Chile-Malaysia BIT had considered it prudent to exclude certain matters from the MFN clause, despite the fact that those matters were alien to the BIT, in view of the "general nature of the MFN clause".) See also *Renta 4 S.V.S.A. v. The Russian Federation*, SCC 024/2007, Award on Preliminary Objections (20 March 2009) at para. 85 (The Tribunal stated that the MFN clause in the treaty "did not prevent the right to MFN treatment from arising out of undertakings to third nations which are given in the future", observing that this is "typically how MFN promises are enlivened.")

462. As regards the object and purpose of Article 1103, it is helpful first to review the principles which guide the interpretation of MFN clauses generally. As may be seen, the object and purpose of MFN clauses, including Article 1103, is to extend the benefit of more favourable treatment, *including* treaty provisions, to investors of a Party.

2) MFN clauses are recognized to extend the benefit of more favourable treaty protections

463. In its *Draft Articles on Most-Favoured-Nation Clauses*,[428] the International Law Commission ("ILC") defines MFN treatment as "treatment accorded by the granting State to the beneficiary State, or to persons or things in a determined relationship with that State, not less favourable than treatment extended by the granting State to a third State or to persons or things in the same relationship with that third State."[429]

464. The commentary to Article 5 acknowledges that MFN clauses may define the conditions for their operation, although this is independent of the "fact of favourable treatment", which may consist in the existence of an agreement between the granting State and a third State by which the latter is entitled to certain benefits:

> Most-favoured-nation clauses may define exactly the conditions for the operation of the clause, namely, the kind of treatment extended by the granting State to a third State that will give rise to the actual claim of the beneficiary State to similar, the same, equal or identical treatment. If, as

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[428] The Draft Articles were adopted by the ILC in 1978 and taken up for debate by the U.N. General Assembly; however, due to concerns primarily among the EEC in connection with the extension of benefits under the Rome Treaty to non-EEC States and in respect of the inadequacy of preferences for developing countries, the Draft Articles were never implemented as a Convention. They nonetheless serve as a general guideline on the operation of MFN clauses. The ILC Working Group recently took up the task of revisiting the Draft Articles and the role of the MFN clause in investment treaty law to address the growing body of arbitral jurisprudence on the MFN treatment in this area. See ILC, Report of the Work Group, 59th Sess. 7 May-8 June and 9 July 10 August 2007, Geneva, A/CN.4/L.719 (20 July 2007).

[429] *Ibid.*, *Draft Articles*, Art. 5.

> is the usual case, the clause itself does not provide otherwise, the clause begins to operate, i.e. a claim can be raised under the clause if the third State (or persons or things in the same relationship with the third State as are the persons or things mentioned in the clause with the beneficiary State) has actually been extended the favours that constitute the treatment. It is not necessary for the beginning of the operation of the clause that the treatment actually extended to the third State, with respect to itself or the persons or things concerned, be based on a formal treaty or agreement. The mere fact of favourable treatment is enough to set in motion the operation of the clause. However, the fact of favourable treatment may consist also in the conclusion or existence of an agreement between the granting State and the third State by which the latter is entitled to certain benefits. The beneficiary State, on the strength of the clause, may also demand the same benefits as were extended by the agreement in question to the third State. There mere fact that the third State has not availed itself of the benefits which are due to it under the agreement concluded with the granting State cannot absolve the granting State form its obligation under the clause. The arising and the termination or suspension of rights under the clause are dealt with in articles 20 and 21 below.[430]
>
> [Emphasis added.]

465. The basic scope of an MFN clause is described in Article 8 of the *Draft Articles*, which provides as follows:

> Article 8. The source and scope
> of most-favoured-nation treatment
>
> [...]
>
> 2. The most-favoured-nation treatment to which the beneficiary State, for itself or for the benefit of persons or things in a determined relationship with it, is entitled under a clause referred to in paragraph 1, is determined by the treatment extended by the granting State to a third State or to persons or things in the same relationship with that third State.

466. The ILC explains in respect of this provision that the "treatment" referred to means the "extent of benefits to which the beneficiary state may lay claim for itself or for persons or things in a determined relationship with it."[431]

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[430] Yearbook of the ILC, 1978, vol. II, Part Two, Commentary to article 5, at p. 23, para. 6.

[431] *Ibid.*, Commentary to Article 8, at p. 25, para. 1.

Furthermore, the validity of the granting of MFN treatment is, for the purpose of a provision's scope, "not dependent on whether the treatment extended by the granting State to a third State, or to persons or things in a determined relationship with the latter, is based upon a treaty, another agreement or a unilateral, legislative, or other act, or mere practice."[432]

467. Articles 9 and 10 of the *Draft Articles* further define the scope of rights under an MFN clause:

> Article 9. Scope of rights under
> a most-favoured-nation clause
>
> 1. Under a most-favoured-nation clause the beneficiary State acquires, for itself or for the benefit of persons or things in a determined relationship with it, only those rights which fall within the limits of the subject-matter of the clause.
>
> 2. The beneficiary State acquires the rights under paragraph 1 only in respect of persons of things which are specified in the clause or implied from its subject-matter.
>
> Article 10. Acquisition of rights under
> a most-favoured-nation clause
>
> 1. Under a most-favoured-nation clause the beneficiary State acquires the right to most-favoured-nation treatment only if the granting State extends to that third State treatment within the limits of the subject-matter of the clause.
>
> 2. The beneficiary State acquires rights under paragraph 1 in respect of persons or things in a determined relationship with it only if they:
>
> *(a)* belong to the same category of persons or things as those in a determined relationship with a third State which benefit from the treatment extended to them by the granting State and
>
> *(b)* have the same relationship with the beneficiary State as the persons and things referred to in subparagraph *(a)* have with that third State.

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[432] *Ibid.*

468. Commentary to Articles 9 and 10 confirms that these provisions enshrine the *ejusdem generis* principle, derived from the very nature of the MFN clause.[433] This principle merely requires that an MFN clause operate on the basis of an "apples-to-apples" comparison. Thus, an MFN clause in a commercial treaty, dealing exclusively with commercial matters, may not be invoked to claim the benefit, for instance, of a more favourable extradition policy in a third treaty, as such an advantage is not of the same class or category of subject matter.[434]

469. Notably, and contrary to Canada's position, the *ejusdem generis* principle does not require that the base treaty containing the MFN clause be of the same category as the benefits claimed in the third treaty. As the ILC has observed, "[t]o hold otherwise would seriously diminish the value of a most-favoured-nation clause".[435]

470. Thus, the fact that an MFN clause is narrow or wide in scope as a result of the application of its conditions does not affect the basis of the treatment under which more favourable benefits are claimed, be that a treaty, an agreement, a unilateral act or some other source.

471. Recently, the ILC determined to resume its consideration of MFN clauses in the particular context of investment agreements. In its first Working Group report, the ILC took note of a recent study by the OECD on MFN Treatment in International Investment Law,[436] which recognized that MFN clauses link investment treaties as "multilateralisation" instruments "*par excellence*:"

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[433] *Ibid.*, Commentary to *Draft Articles* 9 and 10, at p. 30, para. 10.

[434] *Ibid.*, p. 27.

[435] *Ibid.* at p. 30.

[436] ILC, Report of the Working Group, 59th Sess. 7 May-8 June and 9 July 10 August 2007, Geneva, A/CN.4/L.719 (20 July 2007) at p. 14.

> Bilateral and regional investment agreements have proliferated in the last decade and new ones are still being negotiated. Most-Favoured Nation (MFN) clauses link investment agreements by ensuring that the parties to one treaty provide treatment no less favourable than the treatment they provide under other treaties in areas covered by the clause. MFN clauses have thus become a significant instrument of economic liberalisation in the investment area. Moreover, by giving the investors of all the parties benefiting from a country's MFN clause the right, in similar circumstances, to treatment no less favourable than a country's closest or most influential partners can negotiate on the matters the clause covers, MFN avoids economic distortions that would occur through more selective country-by-country liberalisation. Such a treatment may result from the implementation of treaties, legislative or administrative acts of the country and also by mere practice.[437]

472. It is further noted that the contemporary focus of the debate concerning the invocation of MFN clauses in the context of international investment law is on the availability of procedural versus substantive protections in a third treaty. This distinction between the availability of procedural versus substantive protection is not, however, material to the issues in this arbitration. Rather, the question here is whether an investor of a NAFTA Party is entitled to the benefit of substantive guarantees afforded under more favourable treaty standards.

473. The "weight of authority", as Rudolf Dolzer and Christoph Schreuer observe, clearly establishes that MFN treatment entitles investors to substantive guarantees in third treaties:

> While it is important to consider the reasoning of the tribunals and their methodological approach, it is equally or more significant to focus on the holdings of the decisions. The weight of authority clearly supports the view that an MFN rule grants a claimant the right to benefit from substantive guarantees contained in third treaties.[438]

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[437] OECD, *Most-Favoured Nation Treatment in International Investment Law*, Working Papers on International Investment, No. 2004/2 (September 2004), at p. 2.

[438] See R. Dolzer and C. Schreuer, *Principles of International Investment Law* (2008) at pp. 190-91. See also TJ Grierson Weiler, ed., Investment Treaty Arbitration and International Law, Vo. 1 (Juris Net, LLC 2008) at p. 248 (Noah Rubins confirming that "there is relatively little debate today as to whether one can fill in the blanks of substantive protections in an investment protection treaty by reference to other investment treaties that the host State has also entered into with third States).

[Emphasis added.]

C. The requirements of Article 1103

1) *"Treatment" includes the benefit of third treaty standards of protection*

474. It is recalled that Article 1103 is constituted of three elements, requiring:

- treatment "no less favourable";
- than the treatment a Party accords "in like circumstances";
- with respect to "the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments".

475. NAFTA does not define "treatment" for the purpose of Article 1103 (or for any other purpose). As noted above, Article 32 of the *Vienna Convention* provides that recourse may be had to supplementary means of interpretation when the approach under Article 31 leaves the meaning of a term ambiguous or obscure, or otherwise leads to a result which is manifestly absurd or unreasonable. On either approach to interpretation, it is clear that "treatment" includes the benefit of standards of protection in third treaties.

476. Canada attempts to string together a newly-minted definition of treatment by analogising it to "measure", which is defined non-exhaustively in Article 201 as including "any law, regulation, procedure, requirement or practice", and further whittling down its meaning by concluding that treatment means treatment through adopting or maintaining measures. In other words, "treatment" on Canada's reading is even narrower than "measure" itself.[439]

477. This interpretation forms the crux of Canada's submissions in respect of Article 1103, as it contends that there must be a factual comparator – in effect, a measure

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[439] While the application of a measure may constitute "treatment" in certain instances, as noted in the Investor's Memorial at paragraph 468, as further demonstrated below treatment is not confined to such an exclusive and narrow definition.

that was adopted or maintained in connection with a third party investor – in order for the clause to operate. The position taken by Canada in respect of the definition of treatment would clearly lead to such a result.

478. The meaning of "treatment" has not previously been considered by NAFTA tribunals for the purpose of Article 1103. It has, however, been discussed by other arbitral tribunals in the context of MFN claims. In *RosInvestCo. UK Ltd. V. The Russian Federation*,[440] the tribunal was tasked to determine whether it had jurisdiction over the claimant's expropriation claim either under the dispute settlement provision in the Russia-UK BIT or by operation of the MFN clause contained therein pursuant to a broader dispute settlement clause in the Russia-Denmark BIT.[441] The tribunal concluded in respect of the extension of protection available under the Russia-Denmark treaty that it had jurisdiction broader than that granted by the Russia-UK BIT. Its reasoning is illuminating and, accordingly, is reproduced in full below:

> Therefore, without entering into the much more general question whether MFN-clauses can be used to transfer arbitration clauses from one treaty to another, the Tribunal concludes that, for the specific wording of Article 3(1) of the UK-Soviet BIT, and for the specific purpose of arbitration with regard to expropriation, the wide wording of Article 8 of the Denmark-Russia BIT is not applicable.

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[440] SCC Case No. Arbitration V 079/2005, Award on Jurisdiction (October 2007).

[441] The MFN clause in issue provided as follows:

> *Article 3*
> *Treatment of Investments*
> *(1) Neither Contracting Party shall in its territory subject investments or returns of investors of the other Contracting Party to treatment less favourable than that which it accords to investment or returns of investors of any third State.*
>
> *(2) Neither Contracting Party shall in its territory subject investors of the other Contracting Party, as regards their management, maintenance, use, enjoyment or disposal of their investments, to treatment less favourable than that which it accords to investors of any third State.*
>
> *(3) [...]*

> In view of the above conclusion regarding paragraph (1) of Article 3, the Tribunal now has to consider whether it has jurisdiction based on Paragraph (2) of Article 3. As seen above, the provision grants MFN-protection for "investors" by a wording which is quite different to paragraph (1), namely regarding "*their management, maintenance, use, enjoyment or disposal of their investments*". Again limiting its considerations to the possible application of the MFN-clause to arbitration regarding expropriation, the terms "*use*" and "*enjoyment*" in paragraph (2) lead the Tribunal to different conclusions from those reached with regard to paragraph (1). For it is difficult to doubt that an expropriation interferes with the investor's use and enjoyment of the investment, and that the submission to arbitration forms a highly relevant part of the corresponding protection for the investor by granting him, in case of interference with his "*use*" and "*enjoyment*", procedural options of obvious and great significance compared to the sole option of challenging such interference before the domestic courts of the host state.
>
> Does that conclusion have to be changed in view of the further conclusion reached above that Article 8 of the UK-Soviet BIT expressly limits the jurisdiction of the Tribunal and does not give jurisdiction in respect of other aspects of expropriation? In the Tribunal's view, that is not so. While indeed the application of the MFN clause of Article 3 widens the scope of Article 8 and thus is in conflict to its limitation, this is a normal result of the application of MFN clauses, the very character and intention of which is that protection not accepted in one treaty is widened by transferring the protection accorded in another treaty.
>
> If this effect is generally accepted in the context of substantive protection, the Tribunal sees no reason not to accept it in the context of procedural clauses such as arbitration clauses. Quite the contrary, it could be argued that, if it applies to substantive protection, then it should apply even more to "only" procedural protection. However, the Tribunal feels that this latter argument cannot be considered as decisive, but that rather, as argued further above, an arbitration clause, at least in the context of expropriation, is of the same protective value as any substantive protection afforded by applicable provisions such as Article 5 of the BIT.[442]
>
> [Emphasis added]

479. More recently, the tribunal in *Renta 4 S.V.S.A., et al v. The Russian Federation*[443] acknowledged that greater access to arbitration under the Russia-Danish BIT was

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[442] *RosInvestCo* at paras. 129-32.

[443] SCC Arbitration V (024/2007), Award on Preliminary Objections (20 March 2009).

an element of the "types of treatment" that may attract the operation of an MFN clause in the underlying Russia-Spain BIT:

> 86. What remains is of course to determine what the Claimants are able to derive from the Danish BIT. And so the analysis moves to the more specific issue of the possibility of expanding investor-State arbitration via MFN provisions. It is a familiar topic. Yet it comes in a great variety of guises. The answers may change as the questions become more refined. May one conclude that qualifying "investments" under the Spanish BIT are given less favourable treatment than such investments enjoy under the Danish BIT if the latter are given greater access to international arbitration? Is such access an element of the types of treatment that may be compared for purposes of assessing compliance with the MFN standard? These questions are at the heart of a current debate on this aspect of investor-state arbitrations. Yet they are not decisive in this case. It is to the contrary indispensable to understand that in light of the wording of the Spanish BIT either of them may be answered affirmatively without defeating Russia's objection.[444]
>
> [Emphasis added.]

480. In its reasoning, the tribunal stated that there is no support for the proposition that "treatment" within the meaning of an MFN clause corresponds to a primary (substantive) or secondary (procedural) obligation:

> 101. Under *Ambatielos* both of the questions noted under Paragraph 86 above therefore in principle could be answered in the affirmative. Rights and obligations may be classified as substantive or jurisdictional or procedural. Such classifications are not watertight and in any event primarily of pedagogical use. There is no textual basis or legal rule to say that "treatment" does not encompass the host state's acceptance of international arbitration. Where MFN treatment is stated in the relevant BIT to relate to investors rather than investments is in principle of no moment. Investors will not claim access to international arbitration by way of MFN treatment in the abstract. They will assert a breach and harm in connection with a qualifying investment under the relevant BIT. The investor's gateway to MFN treatment is the status of protected investor and ownership of a qualifying investment in terms of the BIT as the "basic treaty". This is the position the Claimants here seek to

[444] *Ibid* at para. 86.

> establish under the Spanish BIT. There is nothing unsound about the general proposition they seek to vindicate.[445]
>
> [Emphasis added.]

481. Ultimately, a majority of the *Renta 4* tribunal rejected the claimant's MFN argument on the basis of the particular provisions in the relevant treaties and not due to any inherent unsoundness in the theory they presented.

482. In a Separate Opinion, Mr. Charles Brower noted his disagreement with the conclusion reached by the majority of the tribunal in respect of the availability of broader consent to international arbitration through operation of the MFN clause. Mr. Brower further acknowledged the "consistently accepted application of MFN clauses to substantive standards of treatment".[446]

483. Following a detailed analysis of the tribunal's conclusions in respect of availability of the arbitration clause in the Danish BIT, Mr. Brower recalled the purpose and rationale of MFN clauses:

> In any case, strictly speaking, it is not relevant, in my view, to attempt evaluation of whether one dispute settlement mechanism objectively is "more favourable" than another. What is relevant is that Danish and Spanish investors in Russia are afforded "different" dispute settlement options. The purpose and rationale of MFN clauses is, as the International Court of Justice has so clearly stated in *Rights of Nationals of the United States of American in Morocco* to "establish and to maintain at all times fundamental equality without discrimination among all of the countries concerned." From this perspective, the mere existence of differences in the available dispute settlement mechanisms is sufficient to trigger an MFN clause and thereby to extend the treatment afforded by the Danish treaty to those benefiting from the MFN clause in the Spanish treaty.[447]
>
> [Emphasis added; footnotes omitted]

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[445] *Ibid* at para. 101.

[446] *Ibid* Separate Opinion of Charles Brower, at para. 10.

[447] *Ibid.* at para. 21.

484. In *LESI SpA and ASTALDI SpA v. Algeria*,[448] the claimant invoked the MFN clause in the BIT between Algeria and Italy to attract the benefit of the fair and equitable treatment standard in the BIT between Algeria and the Economic Union of Belgium and Luxembourg. Algeria argued that the MFN clause applied only in the context of the "promotion" of investments and not their "protection", and that therefore it did not apply.

485. The tribunal rejected this position, focusing on the meaning of "treatment" in the context of an MFN clause:

> 150. [...]
>
> Bien qu'elle figure dans le Chapitre II de l'Accord intitulé «Promotion des investissements», la clause de la nation la plus favorisée a, tant par son esprit que par sa lettre, vocation à s'étendre à tous les aspects du «traitement» des investissements étrangers, qu'il s'agisse de leur promotion ou de leur protection. Le Tribunal arbitral, qui n'est pas lié par les titres donnés aux section de l'Accord bilatéral dont il a à connaître, mais seulement par l'intention commune réelle des Etats contractants, estime qu'il serait contraire à cette intention de restreindre l'application de la clause de la nation la plus favorisée, interprétée à la lumière de l'objet et du traité, à la promotion des investissements, en ajoutant à la clause une distinction qu'elle ne contient pas.

486. Thus, the tribunal concluded that "treatment" must apply to both the "promotion" and "protection" of investments. In so doing, it enabled the claimant to claim the benefit of the more favourable treaty standard in the Algeria-Belgo-Luxembourg BIT.

487. As for the decision by the tribunal in *Société Générale v. Dominican Republic*,[449] relied upon by Canada for the proposition that a treaty standard does not constitute "treatment", it is distinguishable from the present arbitration and, in any event, not inconsistent with the Claimant's MFN claim or the premise advanced

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[448] ICSID Case No. ARB/05/3, Award (12 November 2008).

[449] UNCITRAL, LCIA Case No. UN7927, Preliminary Objections to Jurisdiction (19 September 2008).

in other arbitrations that an MFN clause may operate to entitle the investor to the benefit of a more favourable treaty standard in a third treaty.

488. In *Société Générale*, the investor argued that the MFN clause in the France-Dominican Republic BIT entitled it to take advantage of a wider definition of investment in the Central American Free Trade Agreement between the Dominican Republic and the United States, rather than more favourable benefits or rights accorded under the treaty.

489. The tribunal held that the MFN clause applied only to treatment accorded to investments, and not to the definition of investment itself.[450] This is consistent with the *ejusdem generis* principle that MFN treatment is available in respect of the same class of subjects. The definition of investment in a treaty informs the class of subjects to which MFN treatment may extend and does not constitute treatment itself.

490. The above decisions demonstrate that contrary to Canada's view, "treatment" is a much broader concept than the adoption or maintenance of measures, and includes the extension of rights and benefits under a third treaty whether or not those rights and benefits have been exercised or applied. The comparator in this sense is the third treaty, not a fact pattern in which all of the elements of the MFN clause align in practice with the fact pattern advanced under the base treaty. If this were the intention of the NAFTA Parties in respect of operation of the MFN clause, it could rarely (if ever) be successfully invoked, thereby rendering Article 1103, in effect, meaningless and undermining the object and purpose of the provision.

491. Such cannot have been the Parties' intention in inserting Article 1103. Although Article 1103 has not been fully considered by a Chapter 11 tribunal, it has been

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[450] *Société Générale* at para. 41.

considered in the context of a Chapter 20 dispute known as the *US Trucking* case.[451] The tribunal's consideration of Article 1103 in that case is helpful and consistent with the Investor's interpretation.

492. In *US Trucking*, Mexico brought a Chapter 20 claim against the United States in respect of a moratorium on the processing of applications from Mexican trucking firms to operate in the U.S. border states or invest in companies in the United States providing transportation of international cargo. The tribunal concluded that the United States had violated Articles 2102 and 2103, as well as Articles 1102 and 1103, reasoning as follows:

> 289. Long-established doctrine under the GATT and WTO holds that where a measure is inconsistent with a Party's obligations, it is unnecessary to demonstrate that the measure has had an impact on trade. For example, GATT Article III (requiring national treatment of goods) is interpreted to protect expectations regarding competitive opportunities between imported and domestic products and is applicable even if there have been no imports. Moreover, it is well-established that parties may challenge measures mandating action inconsistent with the GATT regardless of whether the measures have actually taken effect.
>
> [...]
>
> 291. The Panel finds that Mexico has met the requirement of Rule 33 of the Model Rules by establishing a prima facie case of inconsistency with NAFTA. The deprivation of the right to obtain operating authority to U.S. companies owned or controlled by Mexican nationals and the prohibition on allowing Mexican investors to acquire U.S. companies that already have operating authority, on its face, violates the straight-forward provisions of NAFTA Articles 1102 and 1103.
>
> 292. Because the United States expressly prohibits the above mentioned investment, this Panel finds such prohibitions as inconsistent with NAFTA, even if Mexico cannot identify a particular Mexican national or nationals that have been rejected. A blanket refusal to permit a person of Mexico to establish an enterprise in the United States to provide truck services for the transportation of international cargo between points in the United States is, on its face, less favourable than

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[451] *In the Matter of Cross-Border Trucking Services*, File No. USA-MEX-98-2008-01, Final Report (February 6, 2001) ("*US Trucking*").

> the treatment accorded to U.S. truck service providers in like circumstances, and is contrary to Article 1102. Where there have been direct violations of NAFTA, as in this case, there is no requirement for the Panel to make a finding that benefits have been nullified or impaired; it is sufficient to find that the U.S. measures are inconsistent with NAFTA.
>
> [Emphasis added]

493. The principle articulated by the tribunal in this case is telling in respect of the operation of Article 1103. There was no fact comparator against which to assess fulfillment of the Article 1103 conditions. Rather, the inability in principle of a Mexican investor to establish an enterprise to provide certain truck services in the United States as a result of the U.S. regime was sufficient to find a violation of Article 1103, on the presumption that more favourable treatment exists elsewhere.

2) **"Like Circumstances" does not necessarily require a fact comparator**

494. Canada rightly observes that no NAFTA tribunal has considered the meaning of "like circumstances" in the context of an MFN claim under Article 1103. Canada wrongly contends, however, that the interpretation of "like circumstances" by NAFTA tribunals in the context of a national treatment claim under Article 1102 may serve as a simple proxy for operation of Article 1103.[452] In particular, Canada is arguing that because the Article 1102 may require an actual fact comparator, so must the analysis under Article 1103.

495. It must be recalled, however, that Article 1102 and Article 1103, while sharing the same underlying principle of non-discrimination, are two separate provisions with two separate functions. As a result, concepts from one may not be blindly applied to the other.

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[452] See Canada's Counter-Memorial at para. 886.

496. The condition of "like circumstances" is integrally related to "treatment", which as previously established, encompasses substantive guarantees available under third treaties. Where the benefit of a more favourable substantive guarantee under a third treaty is claimed, it is submitted that this condition requires consideration not of a particular investor or investment in fact receiving more favourable treatment, but of the class of investor and/or investment eligible to receive that more favourable treatment under the third treaty.

497. This interpretation is consistent with the ILC's approach to the operation of MFN clauses. The ILC has observed that conditions requiring the presence of a "same relationship" (a requirement in the nature of "like circumstances") often present certain definitional difficulties:

> The Commission is aware that in certain cases the application of the rule contained in articles 9 and 10 can cause considerable difficulties. It has stated already that the expression "same relationship" has to be used with caution because, for example, the relationship between State A and its nationals is not necessarily the "same" as the relationship between State B and its nationals. Nationality laws of States are so diverse that the sum total of the rights and obligations arising from one State's nationality laws might be quite different from that arising from another State's nationality laws. Similar difficulties can be encountered when treaties refer to internal law in other instances; for example, where the right of establishment of legal persons in concerned [*sic*]. [...][453]

498. Nevertheless, it is also emphasized that it is the extension of benefits to a third State, either by the conclusion of a treaty or by some other kind of agreement, that brings an MFN clause "into action", not the crystallization of a set of comparator facts.[454]

499. In the recent case of *Rumeli Telekom, S.A.*, the claimant invoked an MFN clause very similar to Article 1103 in the BIT between Turkey and the Republic of

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[453] See ILC Report, Commentary on Articles 9 and 10, at p. 32, para. 22.

[454] See ILC Report, Commentary on Article 20 (arising of rights under a most-favoured-nation clause) at p. 54, para. 7

Kazakhstan to claim the benefit of more favourable substantive protections in other Kazakhstan BITs, including the BIT between Kazakhstan and the United Kingdom.[455]

500. Among those more favourable substantive protections identified, the claimant asserted entitlement to the benefit of fair and equitable treatment as guaranteed in the Kazakhstan-U.K. BIT.[456]

501. The claimant did not identify a particular fact comparator, yet the tribunal nonetheless determined that, in view of the MFN clause contained in the Kazakhstan-Turkey BIT, Kazakhstan's "international obligations assumed in

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[455] The MFN clause provided as follows:

> **National Treatment and Most-favoured-nation Provisions**
>
> [...]
>
> (2) Neither Contracting Party shall in its territory subject nationals or companies of the other Contracting Party, as regards their management, maintenance, use, enjoyment or disposal of their investments, to treatment less favourable than that which it accords to its own nationals or companies or to nationals or companies of any third State.
>
> (3) For the avoidance of doubt it is confirmed that the treatment provided for in paragraphs (1) and (2) above shall apply to the provisions of Articles 1 to 11 of this Agreement.

[456] Article 2 of the Kazakhstan-U.K. BIT provides that:

> **Promotion and Protection of Investment**
> [...]
> (2) Investments of nationals or companies of each Contracting Party shall at all times be accorded fair and equitable treatment and shall enjoy full protection and security in the territory of the other Contracting Party. Neither Contracting Party shall in any way impair by unreasonable or discriminatory measures the management, maintenance, use, enjoyment or disposal of investments n its territory of nationals or companies of the other Contracting Party. Each Contracting Party shall observe any obligation it may have entered into with regard to investments of nationals or companies of the other Contracting Party.

other bilateral treaties, and in particular the United Kingdom-Kazakhstan BIT, are applicable to this case."[457]

502. Even should Articles 1102 and 1103 share a common meaning of "like circumstances", the Chapter 20 tribunal in *US Trucking* observed, consistent with the ILC's interpretation of the point in time when an MFN clause is brought "into action", that certain treatment may be viewed to breach these provisions even in the absence of a particular comparator.[458]

503. It follows therefore that if the tribunal is satisfied that like circumstances may exist under a third treaty within the same subject matter as that contemplated by Article 1103, this element of Article 1103 may be satisfied. In other words, if the circumstances of the Claimant's investment are such that they may reasonably be contemplated to exist, whether at present or in the future, in a manner capable of triggering the benefit of a third treaty, then no further inquiry is required.

3) **Fair and equitable treatment in a third treaty may apply with respect to the activities contemplated by Article 1103**

504. Canada contends that the "availability of a fair and equitable treatment obligation in a BIT does not fit in this list of actions related to operating an investment."[459] With respect, Canada is asking the wrong question, and not surprisingly, getting the wrong answer.

505. The question is whether the benefit of a more favourable treaty standard may extend to a claimant of a non-Party with respect to the activities identified in Article 1103, *i.e.* may fair and equitable treatment extend to a claimant of a non-

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[457] *Rumel: Telekon*, para. 575.

[458] See *US Trucking* at para. 292.

[459] See Canada's Counter-Memorial at para. 884.

Party with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments.

506. The answer to this question is, quite simply, yes. As demonstrated above, access to the benefit of a more favourable treaty standard may constitute treatment for the purpose of Article 1103, and this treatment may apply in respect of the activities listed in Article 1103. This interpretation is consistent both with the text of Article 1103 and the operation of MFN clauses generally.

D. Canada Breached the MFN Clause by Failing to Accord the Investor Fair and Equitable Treatment

1) Canada's post-NAFTA BITs offer more favourable treatment through a fair and equitable treatment standard not limited by customary international law

507. Between the conclusion of NAFTA and prior to issuance of the FTC Note of Interpretation, Canada concluded 16 BITs all of which provide for fair and equitable treatment in accordance with international law (or the principles of international law). None of these treaties reference the customary international law minimum standard of treatment, nor has Canada sought with its treaty partners to agree an interpretation of these provisions[460], as the NAFTA parties did in respect of Article 1105(1), that would limit the content of this term.

508. Canada attempts to draw these 16 BITs within the sphere of NAFTA and the FTC Note of Interpretation, contrary to the most elemental rules of treaty interpretation, in order to avoid the extension of more favourable protection to the Investor.

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[460] Canada very recently issued a revised draft text of the BITs between Canada and Latvia and Canada and Romania. The revisions to the fair and equitable clauses of these two treaties are telling in their contrast to the former text, as they now specifically reference the minimum standard of treatment. See http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/fipa-apie/fipa_list.asppx?lang-en.

509. Canada first contends that its post-NAFTA BITs are "practically" identical to Article 1105.[461] It then contends that there is "no difference" between the standard of treatment afforded under Article 1105(1) and its post-NAFTA BITs, claiming they both accord the customary international law minimum standard of treatment.[462] In so doing, Canada attempts to graft on the interpretation given to the language of Article 1105(1) by the NAFTA Parties to all of those post-NAFTA BITs identified by the Investor which contain a fair and equitable treatment clause, notwithstanding that those BITs were negotiated and concluded with 16 different treaty partners, none of which are Parties to NAFTA and there is no reference to the minimum standard of treatment anywhere in the text of the BITs.[463]

510. Even if the FTC Note of Interpretation could be viewed as relevant to the interpretation of treaty standards negotiated outside of the NAFTA context, all of the 16 post-NAFTA BITs identified in the Investor's Memorial were negotiated and entered into several years *prior* to issuance of the Note of Interpretation in 2001. In other words, these treaties were negotiated on the basis of whatever understanding prevailed among the particular treaty partners prior to issuance of the Note in respect of the meaning of "fair and equitable treatment in accordance with [principles of] international law".

511. Canada has not sought to clarify the meaning of the term "fair and equitable treatment in accordance with [principles of] international law" through any of the interpretational tools available to it under these treaties since issuance of the FTC

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[461] See Canada's Counter-Memorial at para. 893.

[462] *Ibid.* at para. 896.

[463] In *Saluka*, the tribunal observed that whatever the difference between the customary international law minimum standard of treatment and the international law standard of fair and equitable treatment, the absence of any reference to the minimum standard in the relevant treaty avoids the debate entirely as to any limitation on a host State's obligation under customary international law. *Saluka* at paras. 294-95.

Note. Most of the BITs contain a consultations clause which enables the parties to agree to an interpretation of any provision in the treaty. For example, Article XIII of the Canada-Venezuela BIT, entered into on 1 July 1996, provides:

> Consultations and Exchange of Information
>
> The Contracting Parties may agree, at any time at the request of either Contracting Party, to consultations regarding the interpretation or application of this agreement. Upon request by either Contracting Party, information shall be exchanged on the measures of the other Contracting Party that may have an impact on new investments, investments or returns covered by this Agreement.

512. Any BIT not containing such a clause, such as the Canada-Lebanese BIT, may be amended or modified in accordance with normal treaty amendatory procedures.[464] In either event, such an interpretation or amendment is a consensual process and cannot be accomplished by the unilateral declarations of a single treaty party.

513. The reality is that the fair and equitable treatment provisions in the 16 BITs identified by the Investor stand in stark contrast to the provisions included in Canada's newest generation of post-FTC Note BITs. Thus, in the post-FTC Note Canada-Peru BIT, the contracting parties agreed to the following terms:

> ARTICLE 5
>
> **Minimum Standard of Treatment**
>
> 1. Each Party shall accord to covered investments treatment in accordance with customary international law minimum standard of treatment of aliens, including of fair and equitable treatment and full protection and security.
>
> 2. The concepts of "fair and equitable treatment" and "full protection and security" in paragraph 1 do not require treatment in addition to or beyond that which is required by the customary international law minimum standard of treatment of aliens. [...]

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[464] See Ian Brownlie, *Principles of Public International Law*, 6th ed. (OUP, 2003) at p. 601.

514. There can be no doubt that the contracting parties intended two very different concepts in these respective treaty provisions.

515. Although the term "fair and equitable treatment in accordance with [principles of] international law" in the 16 BITs has not been interpreted by an arbitral tribunal (or by agreement of the BIT treaty parties), NAFTA interpretations of Article 1105(1) prior to issuance of the FTC's Notice of Interpretation, as well as BIT jurisprudence on identical terms, can assist in understanding its meaning in the absence of direct evidence of the negotiating parties' intention. This review of pre-FTC NAFTA authorities' interpretation of Article 1105(1) is set out in part in the Investor's Memorial at paragraphs 336-337. For present purposes, it is briefly recalled that three NAFTA tribunals considered the meaning of Article 1105(1) prior to issuance of the FTC Note.

516. In *Pope & Talbot*, the tribunal set forth its understanding of the text of Article 1105 in its Final Award on the Merits, which was rendered just prior to the FTC Note. The tribunal reasoned as follows:

> Another possible interpretation of the presence of the fairness elements in Article 1105 is that they are *additive* to the requirements of international law. That is, investors under NAFTA are entitled to the international law minimum, *plus* the fairness elements. It is true that the language of Article 1105 suggests otherwise, since it states that the fairness elements are included within international law. But that interpretation is clouded by the fact, as all parties agree, that the language of Article 1105 grew out of the provisions of bilateral commercial treaties negotiated by the United States and other industrialized countries. As Canada points out, these treaties are a "principal source" of the general obligations of states with respect to their treatment of foreign investment.
>
> These treaties evolved over the years into their present form, which is embodied in the Model Bilateral Investment Treaty of 1987. Canada, the UK, Belgium, Luxembourg, France and Switzerland have followed the Model. It provides as follows:
>
> Investment shall at all times be accorded fair and equitable treatment, shall enjoy full protection and security and shall in no case be accorded treatment less than that required by international law.

> The Tribunal interprets that formulation as expressly adopting the additive character of the fairness elements. Investors are entitled to those elements, no matter what else their entitlement under international law. A logical corollary to this language is that compliance with the fairness elements must be ascertained free of any threshold that might be applicable to the evaluation of measures under the minimum standard of international law.[465]
>
> [Emphasis added; footnotes omitted.]

517. The tribunal in *Pope & Talbot* based its reasoning on several sources, including the decisions in *S.D. Myers v. United States* and *Metalclad Corporation v. Mexico*,[466] as well as the treatise of F.A. Mann and UNCTAD's 1999 report on fair and equitable treatment. The tribunal highlighted the following comments in particular (given in *dicta*) from *S.D. Myers*:

> The phrases ... fair and equitable treatment ... and ... full protection and security ... cannot be read in isolation. They must be read in conjunction with the introductory phrase ... treatment in accordance with international law.
>
> The tribunal considers that a breach of Article 1105 occurs only when it is shown that an investor has been treated in such an unjust or arbitrary manner that the treatment rises to the level that is unacceptable from the international perspective.[467]

518. The *Metalclad* tribunal, which rendered its award in August 2000, articulated its approach to and assessment of Article 1105 in the following manner:

> 74. NAFTA Article 1105(1) provides that "each Party shall accord to investments of investors of another party treatment in accordance with international law, including fair and equitable treatment and full protection and security". For the reasons set out below, the Tribunal finds that Metalclad's investment was not accorded fair and equitable treatment in accordance with international law, and that Mexico has violated NAFTA Article 1105(1).

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[465] *Pope & Talbot*, Award at paras. 110-12.

[466] ICSID Case No. ARB(AF)/97/1, Award (30 August 2000).

[467] *S.D. Myers*, Partial Award at para. S262-63.

> 75. An underlying objective of NAFTA is to promote and increase cross-border investment opportunities and ensure the successful implementation of investment initiatives. (NAFTA Article 102(1)).
>
> 76. Prominent in the statement of principles and rules that introduces the Agreement is the reference to "transparency" (NAFTA Article 102(1)). The Tribunal understands this to include the idea that all relevant legal requirements for the purpose of initiating, completing and successfully operating investments made, or intended to be made, under the Agreement should be capable of being readily known to all affected investors of another Party. There should be no room for doubt or uncertainty on such matters. Once the authorities of the central government of any Party (whose international responsibility in such matters has been identified in the preceding section) become aware of any scope for misunderstanding or confusion in this connection, it is their duty to ensure that the correct position in this connection, is promptly determined and clearly stated so that investors can proceed with all appropriate expedition in the confident belied that they are acting in accordance with all relevant laws.
>
> [...]
>
> 99. Mexico failed to ensure a transparent and predictable framework for Metalclad's business planning and investment. The totality of these circumstances demonstrates a lack of orderly process and timely disposition in relation to an investor of a Party acting in the expectation that it would be treated fairly and justly in accordance with the NAFTA.[468]

519. In all three of these cases, the NAFTA Party was determined to have breached its obligations to accord fair and equitable treatment to the investor under Article 1105(1).

520. The Investor's discussion of the manner in which BIT tribunals have interpreted identical provisions to those contained in Canada's BITs is contained at paragraphs 357 to 364 of the Investor's Memorial. To avoid duplication, this

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[468] *Metalclad* at para. 74-76, 99. Notably, the 16 post-NAFTA BITs identified each contain preambular language identifying similar objectives in respect of the promotion and the protection of investments for the purpose of stimulating business or economic initiative and the development of economic cooperation between the parties. For instance, the Canada-Panama BIT explicitly states in its preamble "TAKING into consideration the importance of establishing a predictable environment for the development of investments".

discussion will not be reproduced here. However, several recent awards further support the Investor's position.

521. In *Rumeli Telekom*, the tribunal considered the meaning of "fair and equitable treatment" as that term is expressed in the Kazakhstan-U.K. BIT. In so doing, it concluded that the "treaty standard" of treatment encompasses the following:

> 609. The parties rightly agree that the fair and equitable treatment standard encompasses *inter alia* the following concrete principles:
>
> – the State must act in a transparent manner;
>
> – the State is obliged to act in good faith;
>
> – the State's conduct cannot be arbitrary, grossly unfair, unjust, idiosyncratic, discriminatory, or lacking in due process;
>
> – the State must respect procedural propriety and due process.
>
> The case law also confirms that to comply with the standard, the State must respect the investor's reasonable and legitimate expectations.
>
> 610. The concept "fair and equitable treatment" is not precisely defined. "*It offers a general point of departure in formulating an argument that the foreign investor has not been well treated by reason of discriminatory or other unfair measures being taken against its interest. It is therefore a concept that depends on the interpretation of specific facts for its context.*" The precise scope of the standard is therefore left to the determination of the Tribunal which "*will have to decide whether in all circumstances the conduct in issue is fair and equitable or unfair and inequitable.*"
>
> (Emphasis in original; footnotes omitted.)

522. In *National Grid,* the tribunal was tasked to consider the content of the fair and equitable treatment provision of the BIT between Argentina and the United Kingdom.[469] Observing that there is no reference to the minimum standard of

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[469] Article 2.2 of the Argentina-U.K. BIT provides as follows:

> **Article 2**
> **Promotion and Protection of Investment**
> [...]

treatment, in contrast to Article 1105(1) of NAFTA, the tribunal proceeded to consider the ordinary meaning of the terms "fair" and "equitable". The tribunal echoed the words of Judge Schwebel, to the effect that "the meaning of what is fair and equitable is defined when that standard is applied to a set of specific facts".[470] The tribunal concluded, on its review of arbitral precedent, that fair and equitable treatment requires the following:

> 173. A review of the case law adduced by the Parties shows that fair and equitable treatment is considered an objective standard that does not require bad faith by the State. It also shows that this standard protects the reasonable expectations of the investor at the time it made the investment and which were based on representations, commitments or specific conditions offered by the State concerned . Thus, the treatment by the State should "not affect the basic expectations that were taken into account by the foreign investor to make the investment. *CME* speaks of "evisceration of the arrangements in reliance upon which the foreign investor was induced to invest." *Waste Management* considered it "relevant that the treatment is in breach of representations made by the host State which were reasonably relied upon by the claimant." In the words of the *CMS* tribunal:
>
> > "It is not a question of whether the legal framework might need to be frozen as it can always evolve and be adapted to changing circumstances, but neither is it a question of whether the

(2) Investments of nationals or companies of each Contracting Party shall at all times be accorded fair and equitable treatment and shall enjoy full protection and security in the territory of the other Contracting Party. Neither Contracting Party shall in any way impair by unreasonable or discriminatory measures the management, maintenance, use, enjoyment or disposal of investments in its territory of nationals or companies of the other Contracting Party. Each Contracting Party shall observe any obligation it may have entered into with regard to investments of nationals or companies of the other Contracting Party.

[470] *National Grid,* para. 169. The *MTD* award also refers to the statement of Judge Schwebel to the effect that "the meaning of what is fair and equitable is defined when that standard is applied to a set of specific facts." The fact-specific nature of the standard prompted the tribunal in *Saluka* to say that:

> "Whatever the merits of this controversy between the parties may be, it appears that the difference between the Treaty standard laid down in Article 3.1 and the customary minimum standard, when applied to the specific facts of a case, may well be more apparent than real. To the extent that the case law reveals different formulations of the relevant thresholds, an in-depth analysis may well demonstrate that they could be explained by the contextual and factual differences of the cases in which the standards have been applied."

> framework can be dispensed with altogether when specific commitments to the contrary have been made. The law of foreign investments and its protection has been developed with the specific objective of avoiding such adverse legal effects."
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> 174. Similarly, after a review of arbitral awards, the *Enron* tribunal concluded that: "What seems to be essential ... is that these expectations were derived from the conditions that were offered by the State to the investor at the time of the investment and that such conditions were relied upon by the investor when deciding to invest."

523. The conclusion to be reached from the interpretations given to the term "fair and equitable treatment in accordance with [principles of] international law", as contained in Canada's BITs, is that this term is not bound by the limitations of the customary international law minimum standard of treatment, to the extent that this latter standard is indeed limited to a narrow understanding of the conduct required of host States *vis-à-vis* investors and their investments. In particular, this term has been interpreted to include an obligation to ensure a stable, transparent and predictable investment environment.

2) Articles 1105 and 1103 Must be Interpreted Independently of Each Other

524. Canada appears to suggest that because the FTC has clarified the Parties' intention in respect of the meaning of the treatment available under Article 1105, more favourable treatment than the minimum standard as articulated in the FTC Note is not available to investors of a NAFTA Party under Article 1103.[471] Such a position is unsustainable and should not be entertained.

525. As the tribunal in *UPS* noted, the very interpretation given to Article 1105 by the FTC gives rise to "the likely availability to the investor of the protection of the

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[471] See Canada's Counter-Memorial at para. 891.

most favoured nation obligation in article 1103, by reference to other bilateral investment treaties".[472]

526. Thus, while these two articles are related in the furtherance of NAFTA's objectives to promote and protect investment within the territory of a state party, they must be considered independently such that the interpretation of one is not made subordinate to other.

527. Indeed, where the NAFTA Parties intended to subordinate the operation of one provision to that of another, they did so explicitly. For example, Article 1108 specifically provides for certain exceptions to Article 1103, among other Chapter 11 provisions. Article 1108(6) provides that Article 1103 "does not apply to treatment accorded by a Party pursuant to agreements, or with respect to sectors, set out in its Schedule to Annex IV".

3) Canada's reliance on NAFTA authorities for the proposition the Investor's position has been heard and rejected is misplaced

528. Canada claims that the argument that Canada's post-NAFTA BITs offer a more favourable standard of treatment through their fair and equitable treatment clauses has been "resoundingly" rejected by NAFTA tribunals.[473] Its recounting of the findings of these tribunals is, however, incorrect and unreliable.

529. The tribunal in *UPS v. Canada* rejected the Claimant's MFN claim not because its theory was unsound, but because the claimant failed to fully plead its claim under Article 1103.[474]

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[472] *UPS v. Canada*, UNCITRAL (NAFTA), Decision on Jurisdiction (22 November 2002) at para. 97.

[473] See Canada's Counter-Memorial at para. 898.

[474] *UPS v. Canada*, UNCITRAL (NAFTA), Award on the Merits (24 May 2007) at para. 184.

530. Similarly, in *ADF Group v. United States*, the tribunal did not reject the Claimant's MFN claim because the theory it advanced was unsound, but rather determined that the claim on the facts of that case was precluded by operation of Article 1108, which excludes the application of Article 1103 in cases involving government procurement.[475] Moreover, the tribunal did not decide, as Canada suggests, that the fair and equitable treatment obligation in the United States' post-NAFTA BITs was consistent with Article 1105 – this was merely an argument advanced by the United States as a disputing party. And in any event, the content of the United States' post-NAFTA treaties are not in issue here.

531. Canada raises *Methanex* for the same purpose as *ADF*, to suggest that a NAFTA tribunal has accepted the argument advanced - not by Canada but - by the United States that its post-NAFTA BITs incorporate the same standard of treatment as Article 1105. Yet, even Canada acknowledges that the tribunal made no finding in this regard – in fact, it did not even address this argument in its final award.[476]

532. Finally, Canada attempts to disparage the *Pope & Talbot* tribunal's assessment of Article 1103 and its operation vis-à-vis Article 1105. While an Article 1103 claim was not directly before the tribunal in *Pope & Talbot*, its comments are telling of the fact that Article 1103 stands on its own within the NAFTA investment scheme and cannot be construed as subordinate to Article 1105. Its additive theory of Article 1105, which has been qualified by the FTC Note of Interpretation in the context of Article 1105, was not based on Article 1103, but rather on the manner in which fairness elements had been interpreted in international law.[477]

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[475] *ADF Group,* Award , at para. 196.

[476] See Canada's Counter-Memorial at para. 901.

[477] See *Pope & Talbot v. Canada*, UNCITRAL (NAFTA), Award on the Merits of Phase 2 (10 April 2001) at paras. 110-111.

533. In regard to the non-NAFTA authorities relied upon by the Investor, Canada holds tight to its view that "treatment" bears a very narrow meaning in Article 1103 and therefore the non-NAFTA authorities cited are irrelevant because they ostensibly deal with broader MFN clauses.[478] As explained above, Canada's interpretation of "treatment" – among the other elements of Article 1103 – is misguided and inconsistent with basic principles of interpretation applicable to NAFTA. Moreover, whilst the precise scope of the MFN clauses considered by BIT tribunals may vary, the principles articulated in respect of basic definitional terms, such as treatment, and the operation of MFN clauses generally are clearly apposite to the interpretation and operation of Article 1103.

4) Canada's actions breached the more favourable fair and equitable treatment standard

534. For the reasons discussed in Section II above of this Reply and in Section IV.C of the Investor's Memorial, Canada failed to treat the Investor and its lindane seed treatment business fairly and equitably by the more favourable standard of fair and equitable treatment contained in the afore-mentioned BITs, which benchmark the standard of treatment to be accorded investors to what is required under international law, as opposed to the narrower customary international law minimum standard. As such, Canada has breached its MFN obligations under Article 1103.

IV. Canada Unlawfully Expropriated the Investor's Investment in Violation of NAFTA Article 1110

535. *Summary*: Canada has expropriated the Investor's investment by implementing measures which had the effect of depriving it of the whole of the reasonably to be expected economic benefit of its lindane seed treatment investment in Canada. That taking violates NAFTA unless Canada can prove that it was made (a) for a

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[478] See Canada's Counter-Memorial at para. 906.

public purpose; (b) on a non-discriminatory basis; (c) in accordance with due process of law and Article 1105(1); and (d) on payment of compensation. It is not disputed that Canada paid no compensation, and Canada has failed to demonstrate that the taking met any of the other conjunctive requirements set forth under NAFTA Article 1110.

536. Utterly lacking in a credible defence on the facts, Canada has advanced an ill-conceived expropriation theory which, at its core, rests on the false premise that the taking at issue was a valid exercise of Canada's police powers. On Canada's own admission, its entire defence to the Investor's expropriation claim rests on the assumption that it was entitled to exercise police powers in the circumstances and that, as a consequence, "there has been no expropriation *at all*" (emphasis added).[479] As set forth below, Canada's defence in connection with the Investor's expropriation claim is simply untenable.

A. The Existence of an Investment within the Terms of NAFTA is not in Dispute

537. In its Memorial, the Investor expressly identifies "Crompton Canada", a wholly-owned Canadian subsidiary, as the investment at issue in this NAFTA arbitration.[480]

538. In its Counter-Memorial, Canada admits that the Investor has made an investment that falls squarely within the terms of Article 1139 of NAFTA.[481] Indeed, Canada accepts, as it must, that "Crompton Canada" is an "enterprise", *i.e.* one of the many forms of investments expressly identified by Article 1139 of NAFTA. An "enterprise" such as "Crompton Canada" is in fact the very first type of

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[479] See Canada's Counter-Memorial at para. 662.

[480] See Investor's Memorial at para. 34; see also para. 304

[481] See Canada's Counter-Memorial at para. 504 and following, and in particular para. 528.

investment identified by Article 1139, which for ease of reference is reproduced in full:

> **investment** means:
>
> (a) an enterprise;
>
> (b) an equity security of an enterprise;
>
> (c) a debt security of an enterprise
>
> (i) where the enterprise is an affiliate of the investor, or
>
> (ii) where the original maturity of the debt security is at least three years,
>
> but does not include a debt security, regardless of original maturity, of a state enterprise;
>
> (d) a loan to an enterprise
>
> (i) where the enterprise is an affiliate of the investor, or
>
> (ii) where the original maturity of the loan is at least three years,
>
> but does not include a loan, regardless of original maturity, to a state enterprise;
>
> (e) an interest in an enterprise that entitles the owner to share in income or profits of the enterprise;
>
> (f) an interest in an enterprise that entitles the owner to share in the assets of that enterprise on dissolution, other than a debt security or a loan excluded from subparagraph (c) or (d);
>
> (g) real estate or other property, tangible or intangible, acquired in the expectation or used for the purpose of economic benefit or other business purposes; and
>
> (h) interests arising from the commitment of capital or other resources in the territory of a Party to economic activity in such territory, such as under

> (i) contracts involving the presence of an investor's property in the territory of the Party, including turnkey or construction contracts, or concession, or
>
> (ii) contracts where remuneration depends substantially on the production revenues or profits of an enterprise;
>
> but investment does not mean,
>
> (i) claims to money that arise solely from
>
> (i) commercial contracts for the sale of goods or services by a national or enterprise in the territory of a Party to an enterprise in the territory of another Party, or
>
> (ii) the extension of credit in connection with a commercial transaction, such as trade financing, other than a loan covered by a subparagraph (d); or
>
> (j) any other claims to money,
>
> that do not involve the kinds of interests set out in subparagraphs (a) through (h).
>
> [Emphasis added]

539. Notwithstanding the fact that the existence of an investment within the terms of NAFTA is not in dispute, Canada takes issue with the Investor's references to Crompton Canada's lindane seed treatment business in Canada. Extracting these references from the Investor's Memorial as they relate to Crompton Canada's market share in the lindane seed treatment industry[482] and the prejudicial effect of the impugned measures taken by Canada on Crompton Canada's customers, revenue and goodwill,[483] Canada repeatedly contends that that "goodwill, market

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[482] See Investor's Memorial at para. 518.

[483] See Investor's Memorial at para. 519.

share, and customers are not investments as defined by NAFTA Article 1139".[484] This contention is misguided for a number of reasons.

540. *First*, the Investor has not sought to isolate aspects of its lindane seed treatment business in the manner suggested by Canada. Rather, the Investor has expressly asserted that Crompton Canada is an investment within the terms of NAFTA, indeed an "enterprise" which, to state the obvious, conceptually encompasses goodwill, market share, customers, income, profits and the like derived from its lindane seed treatment business.

541. *Second*, Canada's reliance on selected NAFTA findings in this regard is misplaced. For instance, Canada points to the NAFTA case of *Feldman v. Mexico,*[485] where the tribunal expressly acknowledged that the term "investment" under NAFTA Article 1139 is defined "in exceedingly broad terms" covering "almost every type of financial interest, direct or indirect, except certain claims to money".[486] Canada nonetheless relies on this case in support of its assertion that "deprivation of one product line" is insufficient in terms of establishing expropriation because the "essential issue in determining if there had been a substantial taking was whether the Investor still had control of its investment".[487]

542. In reality, the tribunal in *Feldman v. Mexico* determined that the issue of control (be it of an entire business or a product line thereof) is neither conclusive nor controlling,[488] but merely one factor to be considered in the

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[484] See *e.g.* Canada's Counter-Memorial at para. 504.

[485] *Martin Feldman v. Mexico*, Case No. ARB(AF)/99/1, Final Award (16 December 2002).

[486] *Ibid.* at para. 96.

[487] See Canada's Counter-Memorial at para. 509.

[488] *Feldman*, Final Award, at paras. 111 and 142.

"expropriation/regulation balance".[489] Significantly, the tribunal in that case did not purport to establish a universal standard in this regard, noting rather that "the ways in which governmental authorities may force a company out of business, or significantly reduce the economic benefits of its business, are many".[490]

543. Similarly, in the NAFTA case of *Methanex v. The United States*[491], the tribunal expressly rejected a restrictive interpretation of NAFTA Article 1139 and found that items such as goodwill and market share may figure in the quantification of damages for expropriation.[492] Indeed, the tribunal in that case did not state that goodwill and market share could never stand alone; rather it was of the opinion that they did not stand alone *in that particular case*.

544. Canada also fails to mention that the tribunal in this same case expressly referred to the finding made by the NAFTA tribunal in *Pope & Talbot, Inc. v. Canada*[493] to the effect that an investor's market access "is a property interest subject to protection under Article 1110".[494] As the Investor has previously submitted,[495] Canada's contention to the contrary was in fact expressly rejected by the tribunal in *Pope & Talbot, Inc. v. Canada* in a manner highly apposite to the present circumstances:

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[489] *Ibid.* at para. 111.

[490] *Ibid.* at para. 103.

[491] *Methanex Corporation v. The United States of America*, NAFTA (UNCITRAL), Final Award (9 August 2005).

[492] *Ibid.* at Part IV, Chapter D, para. 17.

[493] *Pope and Talbot, Inc. v. The Government of Canada*, NAFTA (UNCITRAL), Interim Award on the Merits, Phase One (26 June 2000).

[494] *Ibid.* at para. 96.

[495] See Investor's Memorial at para. 517.

> While Canada suggests that the ability to sell softwood lumber from British Columbia to the U.S. is an abstraction, it is, in fact, a very important part of the "business" of the Investment. Interference with that business would necessarily have an adverse effect on the property that the Investor has acquired in Canada, which, of course, constitutes the Investment. While Canada's focus on the "access to the U.S. market" may reflect only the Investor's own terminology, that terminology should not mask the fact that the true interests at stake are the Investment's asset base, the value of which is largely dependent on its export business. The Tribunal concludes that the Investor properly asserts that Canada has taken measures affecting its "investment," as that term is defined in Article 1139 and used in Article 1110.[496]

545. *Third*, in advancing its novel "whole enterprise" argument,[497] Canada conflates the parameters of an investment with the parameters of an actual expropriation of the investment. By way of illustration, Canada refers to the case of *Eastern Sugar B.V. v. The Czech Republic*[498] and argues that the claimant in that case failed to identify an "expropriable investment" because it "was not alleging that its whole investment had been affected".[499] In fact, the claimant in that case did not, as Canada alleges, fail to identify an "expropriable investment"; rather it elected not to allege expropriation altogether. Thus, whilst the tribunal in that case stated that the Czech Republic-Netherlands BIT was only applicable in the event of a "substantial deprivation of the entire investment or a substantial part of the investment", it made no actual ruling in this regard.[500]

546. Canada contends that "[a] similar result occurred" in the ICSID case of *Joy Mining Machinery Limited v. The Arab Republic of Egypt,*[501] a case where the

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[496] *Ibid.* at para. 98.

[497] See Canada's Counter-Memorial at para. 507.

[498] *Eastern Sugar B.V. v. The Czech Republic,* (UNCITRAL), Partial Award (27 March 2007).

[499] Canada's Counter-Memorial at para. 512.

[500] *Eastern Sugar B.V.*, Partial Award at para. 210.

[501] *Joy Mining Machinery Limited v. The Arab Republic of Egypt,* ICSID Case No. ARB/03/11, Award on Jurisdiction, (6 August 2004).

tribunal was required to determine whether a bank guarantee – the release of which was being sought by the claimant – constituted an "investment" protectable under the ICSID Convention. The tribunal ultimately found that by virtue of constituting a "contingent liability", it did not.[502]

547. The ICSID Convention, contrary to NAFTA, is notorious for the absence of a definition of investment. Be that as it may, the facts (and result) of the *Joy Mining Machinery Limited* case are in no way "similar" to those of the *Eastern Sugar* case. In fact, the essential point made by the tribunal in the *Joy Mining Machinery Limited* case was to recall that under the ICSID Convention, an investment "should have a certain duration, a regularity of profit and return, an element of risk, a substantial commitment and [...] should constitute a significant contribution to the Host State's development".[503] It is noteworthy that the tribunal added that "[t]o what extent these criteria are met is of course specific to each particular case as they will normally depend on the circumstances of each case".[504]

548. In sum, Canada's convoluted attempts to attribute some form of *dépeçage* of various aspects of the Investor's investment as it relates to its lindane seed treatment business, be it by reference to goodwill, market share, customers, income, profits and the like, are simply unfounded. To quote Canada itself, these represent "elements of a business,"[505] and Canada's attempts to treat them as detachable "stand-alone investments"[506] are accordingly without merit. It is

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[502] *Ibid.* at para. 45.

[503] *Ibid.* at para. 53.

[504] *Ibid.*

[505] Canada's Counter-Memorial at para. 519.

[506] *Ibid.*

undisputed that the Investor's investment is wholly within the terms of NAFTA, and the Tribunal need not take the issue further.

B. The Investor was Substantially Deprived of its Investment

549. In this arbitration, the Investor seeks redress for measures taken by Canada which indirectly expropriated its investment or were otherwise tantamount to an expropriation of its investment in violation of NAFTA Article 1110.[507]

550. The parties are in agreement that the threshold for finding an indirect expropriation under NAFTA is "substantial deprivation".[508] It is observed from the outset that the parties in fact rely on two of the same awards in support of the "substantial deprivation" threshold in the circumstances (albeit with opposite conclusions as to whether this threshold had been met in the circumstances). To wit, they refer to the following:

- *Pope & Talbot, Inc. v. Canada*, where the NAFTA tribunal found that a particular interference with business activities amounts to an expropriation if "that interference is sufficiently restrictive to support a conclusion that the property has been 'taken'" from the owner, referring for support to the Harvard Draft's definition, which requires interference that "would justify an inference that the owner [...] will not be able to use, enjoy or dispose of the property," and to the Restatement which points to "action that is confiscatory, or that prevents, unreasonably interferes with, or unduly delays, effective enjoyment of alien's property."[509]

- *CMS Gas Transmission Company v. Argentina*, where the UNCITRAL tribunal found that the essential question in indirect expropriation is whether the benefit of

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[507] See Investor's Memorial at paras. 499 and following.

[508] See Investor's Memorial at paras. 503 and following; see also Canada's Counter-Memorial at para. 531

[509] See Investor's Memorial at para. 503; see also Canada's Counter-Memorial at para. 538

a foreign investor's property has been "effectively neutralized", referring expressly to the *Pope & Talbot, Inc.* case.[510]

551. International investment law is in fact replete with awards regarding indirect expropriation which echo the "substantial deprivation" threshold. For instance, in the NAFTA case of *Metaclad Corporation v. Mexico* (also relied upon by Canada[511]), the tribunal held that "a regulatory measure qualifies as expropriatory if it deprives the investor in whole or in significant part, of the reasonably-to-be-expected benefit of the property" (emphasis added).[512]

552. The *Metalclad* case has been cited with approval in a number of instances, including non-NAFTA cases. For instance, the tribunal in *CME Czech Republic B.V. (The Netherlands) v. The Czech Republic*[513] observed, by reference to the *Metaclad* award, that an indirect interference depriving an owner of the "reasonably to be expected economic benefit" of property, may be deemed expropriatory:

> In the Metalclad Corporation v. United Mexican States case (ICSID Case No. ARB (AF)/97/1 (2000) in respect to NAFTA Article 1110 (expropriation), the ICSID Tribunal stated that an expropriation under this provision included not only open, deliberate and acknowledged takings of property, such as outright seizure or formal or obligatory transfer of title in favour of the host State, but also covert or incidental interference with use of property which has the effect of depriving the owner, in whole or in significant part, of the use or reasonably to be expected economic benefit of property even if not necessarily to the obvious benefit of the host State. Thus, by permitting or tolerating the conduct of the municipality, which the tribunal had held amounted to an unfair and inequitable treatment that breached Article 1105, and by participating or acquiescing in the denial to the investor of the right to

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[510] See Investor's Memorial at para. 505; see also Canada's Counter-Memorial at para. 548

[511] See Canada's Counter-Memorial at para. 544.

[512] *Metalclad,* Award at para. 103.

[513] *CME Czech Republic B.V. (The Netherlands) v. The Czech Republic, Ad Hoc* – UNCITRAL, Partial Award (13 September 2001).

> operate, notwithstanding the fact that the project had been fully approved and endorsed by the federal Government, the State Party must in the tribunal's opinion have taken a measure tantamount to expropriation in violation of Article 1110 (1). This view of the ICSID Tribunal is supported by the Biloune award as cited above.[514]

553. The case of *Middle East Cement Shipping and Handling Co. S.A. v. Arab Republic of Egypt*[515] is a further illustration of an indirect expropriation claim which puts to rest Canada's contention that because the Investor has not lost actual ownership of its investment, the circumstances at issue cannot rise to the level of an expropriation. As in many other cases involving indirect expropriations, it also reiterates that an investor need not establish that its entire investment has been expropriated: a substantial deprivation will suffice. In the words of the tribunal:

> When measures are taken by a State the effect of which is to deprive the investor of the use and benefit of his investment even though he may retain nominal ownership of the respective rights being the investment, the measures are often referred to as a "creeping" or "indirect" expropriation or, as in the BIT, measures "the effect of which is tantamount to expropriation." As a matter of fact, the investor is deprived by such measures of parts of the value of his investment. This is the case here, and, therefore, it is the Tribunal's view that such a taking amounted to an expropriation within the meaning of Art. 4 of the BIT and that, accordingly, Respondent is liable to pay compensation therefor.[516]
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> [Emphasis added]

554. Likewise, whilst the degree of control retained in the investment following an alleged indirect expropriation may be *a* factor that a tribunal could consider in

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[514] *Ibid.* at para. 606.

[515] ICSID Case No. ARB/99/6, Award (12 April 2002).

[516] *Ibid.* at para. 107.

determining whether a governmental act (or acts) rises to the level of a treaty breach, it is not the exclusive or even a necessary factor in this determination.[517]

555. Yet another case involving an indirect taking is *Técnicas Medioambientales TecMed S.A. v. The United Mexican States,*[518] where the tribunal discussed reasonable expectations and loss of value or economic use of the investment in the context of an indirect expropriation claim. It is recalled that the dispute in that case arose from a refusal by the Mexican National Ecology Institute to renew TecMed's operating license for a waste confinement facility. The tribunal ultimately found that TecMed's investment, considering *inter alia* TecMed's reasonably held expectations, had been fully and irrevocably destroyed by the government's measures, thereby constituting an indirect expropriation under the applicable treaty. In so doing, the tribunal observed that:

> [t]o establish whether the Resolution is a measure equivalent to an expropriation under the terms of section 5(1) of the Agreement, it must be first determined if the Claimant, due to the Resolution, was radically deprived of the economical use and enjoyment of its investments, as if the rights related thereto — such as the income or benefits related to the Landfill or to its exploitation — had ceased to exist. In other words, if due to the actions of the Respondent, the assets involved have lost their value or economic use for their holder and the extent of the loss. This determination is important because it is one of the main elements to distinguish, from the point of view of an international tribunal, between a regulatory measure, which is an ordinary expression of the exercise of the state's police power that entails a decrease in assets or rights, and a *de facto* expropriation that deprives those assets and rights of any real substance. Upon determining the degree to which the investor is deprived of its goods or rights, whether such deprivation should be compensated and whether it amounts or not to a *de facto* expropriation is also determined. Thus, the effects of the actions or behavior under

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[517] See *e.g. Feldman*, Final Award. This view has been confirmed in legal commentary as well. For instance, Rudolf Dolzer and Christoph Schreuer, in their recent treatise, *Principles of International Investment Law* (New York: Oxford University Press, 2008), observe that "[c]ontrol is obviously an important aspect in the analysis of a taking. However, the continued exercise of control by the investor in itself is not necessarily the sole criterion." See also Christopher F. Dugan *et al.*, *Investor-State Arbitration* (New York: Oxford University Press, 2008) at pages 455-61.

[518] ICSID Case No. ARB(AF)/00/2, Award (29 May 2003).

> analysis are not irrelevant to determine whether the action or behavior is an expropriation.[519]
>
> [Emphasis added]

556. As gleaned from the above, arbitral tribunals will consider a number of factors in determining whether an indirect expropriation has occurred, including not only the effect of the government measures on an investment, but also the degree of reliance on the government's representations.[520] This is confirmed by Jan Paulsson and Zachary Douglas based on their review of investment treaty cases on the issue:

> The prohibition against indirect expropriation should protect legitimate expectations of the investor based on specific undertakings or representations by the Host State upon which the investor has reasonably relied. This is by no means an exclusive test to be applied to all types of alleged indirect expropriations in isolation of other relevant factors. It is, nonetheless, a useful guiding principle that appears to cover many of the situations that have come before the modern investment treaty tribunals.[521]

557. The reality, as Canada itself has acknowledged, is that the occurrence of an indirect expropriation is to be determined on a case-by-case basis.[522] As one commentator has observed:

> [A]ny determination of whether there has been an indirect or regulatory expropriation is highly dependent on the particular facts of the dispute. Indeed, although there have been innumerable decisions and writings on this issue, the factual setting of a dispute is almost always more important than any doctrinal approach or formulation of the controlling

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[519] *Ibid.* at para. 115.

[520] Christopher F. Dugan *et al.*, *Investor-State Arbitration* (New York: Oxford University Press, 2008) at page 455.

[521] Jan Paulsson and Zachary Douglas, "Indirect Expropriation in Investment Treaty Arbitrations", in N. Horn and S. Kröll, *Arbitration Foreign Investment Disputes* (2004). As quoted with approval in *National Grid P.L.C. v. Argentine Republic,* UNCITRAL – *Ad Hoc,* Award (3 November 2008) at para. 152.

[522] See Canada's Counter-Memorial at para. 503.

> legal principles. Leading commentators have long recognized that a case-by-case approach is imperative.[523]

C. Canada's Reliance on the Police Powers Doctrine is Misguided

558. In its Counter-Memorial, Canada contends that even if this Tribunal finds that there has been a substantial deprivation of the Investor's investment, the Investor's expropriation fails because Canada, in the circumstances, has validly exercised its "police powers".[524] Specifically, Canada relies on the doctrine of "police powers" as a means of justifying its actions in this case, arguing that "[t]he PMRA's decision to suspend registration of lindane based on the concerns identified in its Special Review was a valid exercise of Canada's police power which recognized the government's right to protect public health and the environment".[525] This argument fails for a number of reasons.

559. *First*, in articulating its "police powers" defence, Canada admits, albeit in a convenient footnote to its introductory paragraph in this regard, that the occupational health and/or safety concerns it now seeks to rely upon were not initially a consideration leading to the measures now in dispute. Indeed, at footnote 645 of its Counter-Memorial, noting that "the first withdrawal of lindane (for canola) concerned the 1998 VWA between the Investor and the CCGA", Canada acknowledges that "it is the second, more general withdrawal of lindane – based on the science of the Special Review – that implicates the police powers doctrine".

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[523] Christopher F. Dugan *et al.*, *Investor-State Arbitration* (New York: Oxford University Press, 2008) at page 450.

[524] See Investor's Memorial at para. 565.

[525] Canada's Counter-Memorial at para. 663.

560. However trite, it must be emphasized that the police powers doctrine cannot serve as an *ex post facto* justification of a State's actions. As the Investor has demonstrated, the measures having caused the expropriation of its investment in the circumstances were not introduced by Canada to protect occupational health and safety. Quite the contrary, they were designed to serve an economic and political purpose, namely to reinforce a policy decision to safeguard economic relations with the United States at the expense of the Investor's investment. The true motivation having led the PMRA to implement the impugned measures was to protect the U.S. market share of Canadian canola growers from possible adverse trade action against growers' exports to the United States. The protection from foreign threats of the property interests in exports of one class of Canadian producers is not a valid pretext for the exercise of "police powers" as that doctrine is understood under customary international law.

561. In addition, the PMRA's subsequent de-registration of all of Crompton Canada's Lindane Product registrations in February 2002 is tainted by the original improper purpose motivating the PMRA's negotiation of the CWA and conduct of the Special Review process.

562. The evidence clearly establishes that, from the outset, Canada's actions were dictated by an economic and political rationale and accordingly cannot, as Canada argues, be construed as a valid exercise of the police powers. The Tribunal should examine the lawfulness of the expropriation on the basis of the record upon which Canada relied when it suspended Chemtura's lindane product registrations. Canada's after-the-fact attempt to justify the measures at issue on the basis of the "police powers" doctrine should not be allowed to cloud this determination.

563. *Second*, Canada's interpretation of the "police powers" doctrine is misguided. According to Canada, it is "an accepted principle of international law that States are not liable to compensate foreign investors for economic losses incurred as a result of measures designed to protect public health and the environment that fall

within the police powers of a State".[526] Canada is thus arguing that the "police powers" doctrine, which is in fact an exception to a State's duty to compensate for a taking, is absolute in nature, conflating police measures with any measure taken for a public health or environmental purpose. There is no support for this view.

564. In *Saluka Investments B.V. v. The Czech Republic*,[527] the tribunal expressly observed that both legislators and ajudicators must be reminded that "the so-called 'police power exception' is not absolute".[528] Much like the *Pope & Talbot, Inc.* tribunal, which warned that "the exercise of police powers must be analyzed with special care"[529], the *Saluka* tribunal observed:

> [I]nternational law has yet to identify in a comprehensive and definitive fashion precisely what regulations are considered "permissible" and "commonly accepted" as falling within the police or regulatory power of States and, thus, non-compensable. In other words, it has yet to draw a bright and easily distinguishable line between non-compensable regulations on the one hand and, on the other, measures that have the effect of depriving foreign investors of their investment and are thus unlawful and compensable in international law.
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> It thus inevitably falls to the *adjudicator* to determine whether particular conduct by a state "crosses the line" that separates valid regulatory activity from expropriation. Faced with the question of *when, how and at what point an otherwise valid regulation becomes, in fact and effect, an unlawful expropriation*, international tribunals must consider the circumstances in which the question arises. The context within which an impugned measure is adopted and applied is critical to the determination of its validity.[530]
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> [Emphasis added and italics in original]

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[526] See Canada's Counter-Memorial at para. 571.

[527] *Saluka Investments B.V. v. The Czech Republic, Ad Hoc* – UNCITRAL Partial Award (17 March 2006).

[528] *Ibid.* at para. 258

[529] As noted by Canada at para. 583 of its Counter-Memorial.

[530] *Ad Hoc* – UNCITRAL, Partial Award (17 March 2006) at paras. 263-264.

565. Similarly, in the ICSID case of *Compañía del Desarrollo de Santa Elena S.A. v. The Republic of Costa Rica,*[531] the tribunal determined that although measures taken by the State may be based on environmental objectives, this does not detract from the fact that such measures may be expropriatory in nature. The tribunal stated:

> [...] While an expropriation or taking for environmental reasons may be classified as a taking for a public purpose, and thus may be legitimate, the fact that the Property was taken for this reason does not affect either the nature or the measure of the compensation to be paid for the taking. That is, the purpose of protecting the environment for which the Property was taken does not alter the legal character of the taking for which adequate compensation must be paid. The international source of the obligation to protect the environment makes no difference.
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> Expropriatory environmental measures—no matter how laudable and beneficial to society as a whole—are, in this respect, similar to any other expropriatory measures that a state may take in order to implement its policies: where property is expropriated, even for environmental purposes, whether domestic or international, the state's obligation to pay compensation remains.[532]
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> [Emphasis added]

566. The findings made by the tribunal in the *Santa Elena* case were noted with approval in the ICSID case of *Vivendi v. Argentina*[533]. As set forth in the Investor's Memorial, this case involved a dispute arising out of a concession agreement between Vivendi and the provinces of Tucuman for the privatization of water and sewage services. The tribunal emphasized that the effect of a measure, not the government's intent, is the critical factor in an expropriation analysis.[534] The tribunal added:

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[531] ICSID Case No. ARB/96/1, Final Award, (17 February 2000).

[532] *Ibid.*at paras. 71-72.

[533] *Compañia de Aguas del Aconquija S.A. and Vivendi Universal S.A. v. Argentina*, ICSID Case. No. ARB/97/3, Award (20 August 2007).

[534] See Investor's Memorial at para. 513.

> Also, the structure of Article 5(2) of the Treaty [providing that "Contracting Parties shall not adopt, directly or indirectly, measures of expropriation or nationalization or any other equivalent measure having an effect similar to dispossession, except for public purpose and provided that such measures are not discriminatory or contrary to a specific commitment"] directs the Tribunal first to consider whether the challenged measures are expropriatory, and only then to ask whether they can comply with certain conditions, *ie* public purpose, non-discriminatory, specific commitments, et cetera. If we conclude that the challenged measures are expropriatory, there will be violation of Article 5(2) of the Treaty, even if the measures might be for a public purpose and non-discriminatory, because no compensation has been paid. Respondent's public purpose arguments suggest that state acts causing loss of property cannot be classified as expropriatory. If public purpose automatically immunises the measure from being found to be expropriatory, then there would never be a compensable taking for a public purpose. As the tribunal in Santa Elena correctly pointed out, the purpose for which the property was taken "does not alter the legal character of the taking for which adequate compensation must be paid." The legal element in question is whether the act is expropriatory or not. If Respondent's invocation of public purpose were correct, Costa Rica would have prevailed in the Santa Elena case and thus would not have faced the prospect of having to compensate.[535]
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> [Emphasis added]

567. It is further recalled that the tribunal in the *Vivendi v. Argentina* case stated that state action is not presumed to be legitimate *per se*.[536] The burden of establishing that an impugned measure has validly been taken in accordance with the "police powers" doctrine lies with the State who has undertaken its implementation.

568. Yet Canada, in the present circumstances, is advancing its "police powers" justification in exactly the manner denounced by the tribunal in the *Vivendi v. Argentina* case, *i.e.* Canada is invoking *ex post facto* public health and environmental concerns to "immunise" the measures at issue from being deemed expropriatory. This is made obvious by Canada's reliance, *inter alia,* on NAFTA

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[535] *Compañia de Aguas de Alonquija S.A. and Vivendi Universal S.A. v. Argentina*, ICSID Case No. ARB/97/3, Award (20 August 2007) at para. 7.5.21.

[536] See Investor's Memorial at para. 513.

Articles 1101(4)[537] and 1114.[538] According to Canada, "[t]aken as a whole, these NAFTA provisions demonstrate that the NAFTA signatories did not intend for non-discriminatory regulatory measures that are designed to protect public health and the environment – such as the PMRA's decision to de-register lindane – to constitute expropriation".[539]

569. On Canada's reading of the provisions of NAFTA, there would be next to no possibility of making a claim for expropriation where the measures at issue are cloaked as measures undertaken for public health and environmental concerns. Unsurprisingly, in support of its position, Canada refers to the NAFTA tribunal's findings in *S.D. Myers*, which stated that "[r]egulatory conduct by public authorities is unlikely to be the subject of legitimate complaint under Article 1110 of the NAFTA".[540] However, this stance, it is recalled, was openly criticized in the decision of *Azurix Corp. v. Argentina*:

> For the Tribunal, the issue is not so much whether the measure concerned is legitimate and serves a public purpose, but whether it is a measure that, being legitimate and serving a public purpose, should give rise to a compensation claim. In the exercise of their public policy function, governments take all sorts of measures that may affect the economic value of investments without such measures giving rise to a

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[537] NAFTA Article 1101(4) provides as follows: "4. Nothing in this Chapter shall be construed to prevent a Party from providing a service or performing a function such as law enforcement, correctional services, income security or insurance, social security or insurance, social welfare, public education, public training, health, and child care, in a manner that is not inconsistent with this Chapter."

[538] NAFTA Article 1114 provides as follows: "1. Nothing in this Chapter shall be construed to prevent a Party from adopting, maintaining or enforcing any measure otherwise consistent with this Chapter that it considers appropriate to ensure that investment activity in its territory is undertaken in a manner sensitive to environmental concerns. 2. The Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety or environmental measures. Accordingly, a Party should not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such measures as an encouragement for the establishment, acquisition, expansion or retention in its territory of an investment of an investor. If a Party considers that another Party has offered such an encouragement, it may request consultations with the other Party and the two Parties shall consult with a view to avoiding any such encouragement."

[539] See Canada's Counter-Memorial at para. 580.

[540] See Canada's Counter-Memorial at para. 582.

> need to compensate. The tribunal in *S.D. Myers* found the purpose of a regulatory measure a helpful criterion to distinguish measures for which a State would not be liable: "Parties [to the Bilateral Treaty] are not liable for economic injury that is the consequence of *bona fide* regulation within the accepted police powers of the State." This Tribunal finds the criterion insufficient and shares the concern expressed by Judge R. Higgins, who questioned whether the difference between expropriation and regulation based on public purpose was intellectually viable:
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> > "Is not the State in both cases (that is, either by a taking for a public purpose, or by regulating) purporting to act in the common good? And in each case has the owner of the property not suffered loss? Under international law standards, a regulation that amounted (by virtue of its scope and effect) to a taking, would need to be 'for a public purpose' (in the sense of in general, rather than for a private interest). And just compensation would be due. At the same time, interferences with property for economic and financial regulatory purposes are tolerated to a significant extent."
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> The argument made by the S.D. Myers tribunal is somehow contradictory. According to it, the BIT would require that investments not be expropriated except for a public purpose and that there be compensation if such expropriation takes place and, at the same time, regulatory measures that may be tantamount to expropriation would not give rise to a claim for compensation if taken for a public purpose. The public purpose criterion as an additional criterion to the effect of the measures under consideration needs to be complemented.[541]
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> [Emphasis added]

570. The *Azurix* tribunal, like the *TecMed* tribunal before it, determined that the proportionality criterion, *in lieu* of the police powers criterion, was of more guidance in terms of determining whether regulatory actions tantamount to expropriation should be compensated.[542] Yet, the impugned measures taken by Canada not only fail to meet the proportionality criteria, but were also arbitrary, discriminatory and utterly lacking in good faith. Whilst the true nature of Canada's actions are considered further below, it is noted, at this juncture, that

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[541] *Azurix Corp (USA) v. Argentina,* ICSID Case No. ARB/01/12, Award (14 July 2006) at para. 310.

[542] See Investor's Memorial at para. 515.

this is the very reason why the present circumstances are distinguishable from the NAFTA case of *Methanex v. The United States*.

571. Indeed, Canada relies heavily on the findings made in *Methanex*, arguing that it is the "NAFTA case most directly applicable to the present matter".[543] But, Canada's reliance on *Methanex* is inapposite because central to the *Methanex* tribunal's expropriation analysis was the finding that the impugned measures, contrary to the ones at issue in the present circumstances, were legitimately taken for a public purpose, were non-discriminatory and were accomplished with due process.[544] Conversely, an "intentionally discriminatory regulation" was in fact recognized by the *Methanex* tribunal as "a key requirement for establishing expropriation".[545] Canada completely overlooks this caveat and assumes that it can disguise improper measures by cloaking them with *ex post facto* public health or environmental considerations void of any scientific basis.

572. Contrary to what Canada insinuates, the Investor is not suggesting that it "has an unfettered right to produce or sell pesticides in Canada".[546] The Investor does maintain, however, that it has the right to the protections set forth under Article 1110 of NAFTA against expropriatory measures that are not genuinely taken for a public purpose, on a discriminatory basis and without regard to due process. This is precisely the lens through which the issue of "specific commitments" considered by the *Methanex* tribunal is to be understood when it stated as follows:

> In the Tribunal's view, Methanex is correct that an intentionally discriminatory regulation against a foreign investor fulfills a key requirement for establishing expropriation. But as a matter of general international law, a non-discriminatory regulation for a public purpose,

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[543] See Canada's Counter-Memorial at para. 585.

[544] *Methanex* Final Award at Part IV, Chapter D, para. 15.

[545] *Ibid.* at Part IV, Chapter D, para. 7.

[546] Canada's Counter-Memorial at para. 590.

> which is enacted in accordance with due process and which affects, inter alios, a foreign investor or investment is not deemed expropriatory and compensable unless specific commitments had been given by the regulating government to the then putative foreign investor contemplating investment that the government wpuld refrain from such regulation.[547]

573. On the issue of "specific commitments", Canada states that Chemtura "began its lindane sales in Canada in the 1970s without any commitment from Canada, either then or at any time thereafter, that its regulating body would forbear from regulating the Investor's conduct".[548] Respectfully, Canada entirely misses the point. The Investor is not contending that representations were made to the effect that "it would be entitled to operate outside of the regulations governing pesticides in Canada or that those regulations would remain unchanged for any length of time, let alone indefinitely".[549] Rather, the Investor takes issue with Canada' pattern of ambiguous, non-transparent and changing commitments which demonstrate bias on the part of the PMRA and a clear intention to eliminate lindane from the Canadian marketplace in a disproportionate manner, and without a proper genuine purpose to do so, as recalled in more detail next.

D. Canada Has Failed to Discharge its Burden of Proof as to the Propriety of its Exercise of Alleged Police Powers

574. Tellingly, Canada observes that the police powers doctrine is meant to "operate within certain limits so that it is not abused by governments who might enact police measures as a pretext to an expropriation".[550] Yet Canada's reliance on the police powers doctrine is nothing more than that: a pretext to an expropriation of the Investor's investment.

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[547] *Methanex* Final Award at Part IV, Chapter D, para. 7.

[548] See Canada's Counter-Memorial at para. 589.

[549] See Canada's Counter-Memorial at para. 592.

[550] See Canada's Counter-Memorial at para. 594.

575. Canada nonetheless contends that "[t]he PMRA's decision to de-register lindane fits within the police powers doctrine in that it was: i) not made in an arbitrary manner since it respected due process and was based on valid science; ii) non-discriminatory; iii) not excessive and iv) made in good faith to combat the serious occupational risks posed by lindane".[551] Canada has wholly failed to discharge its burden of proof in this regard.

576. The Investor has already established that the measures at issue were taken by Canada in an arbitrary manner, in disregard of the Investor's due process rights and in the pursuit of economic and political objectives as opposed to health or environmental ones, *i.e.* to reinforce a policy decision to safeguard economic relations with the United States at the expense of the Investor's investment. Significantly, the evidentiary record demonstrates that Canada did not, at the relevant time, have the required scientific data to even camouflage its expropriatory actions, i.e. the suspension of Crompton Canada's lindane product registrations.

577. The only ostensibly science-based "reason" for requiring the termination of Crompton Canada's lindane business in Canada was a study carried out ten (10) years earlier which did not reflect current practice in the seed treatment industry to protect workers. The PMRA knew the study was obsolete and should have requested a new one. By contrast, Syngenta's Helix was approved based on a current study and would not have been registered if the old study had been used, proving that the measures at issue were not only arbitrary but discriminatory as well. In the circumstances, Canada's contention that "the validity of the science underlying the PMRA's decisions should not be so high as to require a Tribunal to

[551] See Canada's Counter-Memorial at para. 500.

second-guess the regulatory science upon which policy decisions are made by the State"[552] is thus disingenuous in the extreme.

578. The crux of the matter is that the PMRA's ultimate deregistration of all of Crompton Canada's Lindane Product registrations in February 2002 was tainted by the original improper purpose having motivated the PMRA's negotiation of the CWA, the conduct of the Special Review process and the Occupational Exposure Assessment ("Assessment"). In particular, the PMRA's failure to accord Crompton Canada due process or abide by fundamental principles of fairness in the course of the Special Review having led to the Assessment, which in turn purportedly formed the basis for de-registration of the remainder of Crompton Canada's lindane registrations, fly in the face of Canada's contention that the PMRA's decision to de-register lindane "fits" within the police powers doctrine. Crompton Canada was simply not given any meaningful opportunity to participate in the process having led to the PMRA's decision to de-register lindane, as confirmed by the Lindane Review Board, an independent panel established by the Canadian Minister of Health.

579. It follows that the measures at issue, and in particular the de-registration of lindane, was disproportionate to the alleged regulatory objection of promoting occupational health and safety. Had this genuinely been the objective, the Investor could have furnished the PMRA with the data and studies that would have demonstrated that the alleged occupational health and safety concerns at issue were based on outdated information. The fact that such information was never requested suggests that the PMRA was deliberately proceeding on the basis of information that was prejudicial to Crompton Canada.

580. Yet by reference to the "police powers" doctrine, Canada attempts to justify its incomplete and unbalanced conduct. As noted, the Lindane Board of Review has

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[552] See Canada's Counter-Memorial at para. 605.

already determined that Canada's conduct throughout the process was severely flawed, with contemporaneous accounts demonstrating bias on the part of the PMRA and a clear intention to eliminate lindane from the Canadian marketplace. Again, such conduct smacks of bad faith and does not "fit" in the "police powers" doctrine.

581. These actions resulted in an improper deprivation of the Investor's use and enjoyment of its investment, the Investor having been substantially and permanently deprived of this investment, initially as it related to its lindane products for canola as of July 1, 2001, and ultimately as it related to its entire lindane products seed treatment business in Canada as of February 21, 2002. And whilst Canada attempts to belittle the impact of its improper actions by suggesting that lindane product sales allegedly represented only a small portion of the Crompton Canada's overall business,[553] it must be emphasized that Chemtura held the lion's share of the market for lindane based canola seed treatments in Canada, approximately [***] shared between three other registrants. It follows that Chemtura had the most to lose as a result of Canada's actions. Moreover, the canola crop in Canada was and is very large. By removing lindane from the market, the other three registrants had the opportunity to displace Chemtura as the market leader in seed treatment products for use on canola. Indeed, Syngenta had the most to gain from the removal of lindane, as it was preparing the introduction of its product Helix. Clearly, the impact of the PMRA's actions towards the Investor was excessive, and this is further evidence that they do not "fit" within the police powers doctrine.

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[553] See Canada's Counter-Memorial at para. 557.

E. The Investor Did Not Consent to the Expropriation of its Investment

582. As a final argument, Canada submits that Chemtura consented to the CWA and that in the absence of an "act of compulsion" it cannot now claim expropriation. Canada alleges in particular that Chemtura had the capacity to say "no" to the CWA but did not, choosing rather to take the benefit of the CWA.[554]

583. Canada's "consent" defense to the Investor's expropriation claim is wholly without merit. It is imperative to recall the PMRA, not the Investor, characterizes the CWA as a "voluntary" withdrawal. Be that as it may, the "voluntary" nature of the agreement is vitiated by the fact that Crompton Canada was dealing directly with the very body with the power to regulate the use of all pest control products and thus with the power to regulate Crompton Canada out of business. This puts to rest Canada's suggestion that Crompton Canada was free to say "no".[555] Furthermore, although Canada consistently referred to the agreement at issue as "voluntary", Canada later took the position that this was not a voluntary withdrawal as provided for in the Regulations and therefore registrants were not entitled to the rights associated with such a process.

584. It follows that Canada's contention that the Investor "consented" to the expropriation at issue is disingenuous and should be rejected.

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[554] See Canada's Counter-Memorial at para. 659.

[555] See Canada's Counter-Memorial at para. 659.

PART FOUR DAMAGES

I. Principles Governing the Law of Damages

585. Canada disputes Chemtura's claim for damages on four bases: causation was absent, Chemtura failed to mitigate its losses, Chemtura contributed to its losses, and Chemtura's damage Valuator's report is flawed.

586. Canada's arguments are without merit and may be disposed of in favour of the Investor on the principles governing the law of damages and the facts established in the Investor's Memorial and this Reply.

A. Causation

587. The Investor's case is, contrary to Canada's submissions, that its losses were directly caused by the actions of Canada in (a) destabilizing, and undermining the market for lindane-based seed treatments, and (b) taking away the ability of Chemtura to sell lindane-based seed treatments, as the proximate and direct causal link to Chemtura's damages.

588. Chemtura's ability and efforts to mitigate were frustrated by Canada's delay in enabling the sale of its lindane substitute product, Gaucho CS FL.

589. Chemtura's actions reflected reasonable and prudent business decisions, acting under state compulsion to abandon sales and marketing rights of a key, profitable product.

590. The damage Valuators Report relies on the assumptions necessary to calculate the consequences of alternative events – a but-for analysis – under the well established principle that compensation should undo the material harm inflicted by a breach of state's international obligations.

591. Chemtura and Canada are in general agreement as to the principles of causation entitling an investor to compensation:

(a) a party bears the burden of proving a positive assertion it advances, and

(b) damages are awarded where they are directly caused by a breach of international law.

592. Here, damages were sustained by Chemtura as a direct result of the actions of the PMRA in compelling adherence to the CWA, in sowing alarm about lindane seed treatments in the grower and user communities, in breaching the terms of its Agreement with Chemtura regarding the terms of withdrawal, and in peremptorily deregistering all formerly permitted uses of lindane-seed treatments.

593. In defending its actions, Canada makes the bizarre claim that "the VWA [Voluntarily Withdrawal Agreement] actually extended the sales of lindane treated canola seed..."[556]. Obviously, a commitment to withdraw where non existed before, exacted by promise of lenient phase-out, and threat of immediate market expulsion for refusal, cannot be said to "extend sales."

594. Canada further claims that "by facilitating the VWA, PMRA saved 3 years of sales for Chemtura..." In fact the breach of its withdrawal agreement with Chemtura, and peremptory deregistration of Chemtura's lindane-based products, clearly truncated all sales of those products that Chemtura would have continued to make. This was conduct not of a "facilitator", but of an arbitrary regulator, directly causative of the financial losses sustained by Chemtura.

595. Much of Canada's argument in disputing causation[557] of damages repeats the arguments made previously in its Counter-Memorial, and are addressed above in this Reply.

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[556] Canada's Counter-Memorial at para. 921

[557] Canada's Counter-Memorial, paras. 916-926.

B. The Investor Made Reasonable Efforts to Mitigate its Losses

1) Canada's arguments on mitigation are unavailing

596. Within the context of an investor state dispute, the investor is legally obliged to take the necessary 'normal', 'expected' or 'reasonable' steps to mitigate their loss after a breach of the obligations found under the investment regime has occurred.

597. The legal authorities cited by Canada note only very general propositions of law, namely that an investor has a duty to mitigate loss when it is reasonable to do so. Moreover, the authority cited by Canada for the proposition that an investor must make business decisions to reduce loss when it is reasonable and possible to do so, is the converse of the Tribunal's reasoning in that case. In the case cited, the Tribunal actually concludes that there was no failure to mitigate and that it would have been impossible for the investor to make any other business decision.

598. Canada asserts that Chemtura failed to adequately mitigate its losses, and offers a number of reasons in support of this allegation.

599. First, Canada states, that Chemtura "had enough product in 1999 to see it through the [next 3] growing seasons. Knowing that the VWA committed to terminating use by 2001," Canada states that Chemtura should have focused on replacement products.[558]

600. This assertion entirely misses the point. Had Canada actually observed the conditions it agreed to in order to obtain Chemtura's agreement to withdraw, Chemtura would not have needed replacement products on an urgent basis.

601. Second, Canada claims that Chemtura had "at least two lindane replacement products ready to sell in time for the 2001 growing season", as PMRA ensured that Chemtura "had products to mitigate any losses it may have suffered". The

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[558] Canada's Counter-Memorial, para. 929.

supposed inadequacies of these replacement products, according to Canada, not its fault and should have been the focus of improvement efforts.

602. Third, Canada contends that given the health concerns surrounding lindane, Chemtura should have developed alternatives earlier.

603. However, the "two lindane replacement products" Canada refers to were not lindane replacements. They were not dual fungicide-insecticide products in any way comparable to the lindane-based products of which Canada was compelling withdrawal. Moreover, the concerns around lindane at the material times were not health-related but trade-related, as the record amply shows. Had concerns sincerely been "health related," Canada could have acted under its existing legislatively authorized routes to remove lindane from use, rather than "facilitating" a voluntary industry withdrawal.

604. With respect to non-canola lindane treatment products, Canada provides two reasons for its position that Chemtura failed to mitigate its losses: first, that Chemtura did not take part in the phase-out offered after the Special Review was completed, refusing to take advantage of any voluntary discontinuation, and second, that Chemtura did not sell any lindane replacement products for non-canola uses.

605. These, however, can hardly be described as failures to mitigate. The first, Chemtura's refusal to bow to Canada's arbitrary measures in return for a brief "grace period," would amount to acquiescence to Canada's breach, not mitigation. The second, not selling products for non-canola uses, turns the issue on its head. The products at issue here were particularly suited to canola seed, and were not extensively used on other crops. Canada's breaches did nothing to change this fact.

2) The legal authorities and support offered in favour of Canada's position are inapposite

606. Canada relies on four legal authorities in support of their position that Chemtura failed to adequately mitigate its loss. The relative applicability of these authorities to the immediate facts of this case are considered below, followed by analysis of other relevant authorities.

607. The first authority cited by Canada is a book published in 1937 entitled "*Damages In International Law*", by Marjorie M. Whiteman. This authority is cited for the general proposition at law that where an investor fails to mitigate their losses, their entitlement to damages will be reduced accordingly. A second authority offered by Canada to support the same proposition is the *Gabčíkovo–Nagymaros Project (Hungary/Slovakia)* case.[559] This is a fairly recent International Court of Justice ("ICJ") case that supports the "principle that an injured State which has failed to take the necessary measures to limit the damage sustained would not be entitled to claim compensation for that damage which could have been avoided". Interestingly, outside of this general statement of legal principle, the ICJ declines any actual examination of the duty to mitigate, finding it unnecessary for the case before it.[560]

608. The third authority offered by Canada is the Draft Articles on *Responsibility of States for Internationally Wrongful Acts* of the International Law Commission ("ILC"). The relevant portion of the commentary of these Articles states:

> 31 (11) A further element affecting the scope of reparation is the question of mitigation of damage. Even the wholly innocent victim of wrongful conduct is expected to act reasonably when confronted by the injury. Although often expressed in terms of a "duty to mitigate", this is not a legal obligation which itself gives rise to responsibility. **It is rather**

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[559] *Case Concerning the Gabcikovo-Nagmaros Project (Hungary v. Slovakia)* Judgment of 25 September 1997, General List No. 92 (" *Gabcikovo-Nagmaros Project*").

[560] *Gabcikovo-Nagmaros Project*, at para. 81.

> **that a failure to mitigate by the injured party may preclude recovery to that extent.**[561]
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> [Emphasis added]

609. The fourth and final authority cited by Canada is the ICSID Award, *AMCO Asia Corp. et al. v. The Republic of Indonesia.*[562] In this case, a Lease and Management Agreement was concluded in 1968 between Amco Asia, a US Corporation, and PT Wisma, an Indonesian company, under which Amco Asia was to complete the construction of the Kartika Plaza Hotel in Indonesia ("Project").

610. An Indonesian subsidiary was established for the Project with share capital of US$ 3,000,000. Difficulties arose between this subsidiary and PT Wisma, particularly concerning the amounts due to the respective parties under the Profit-Sharing Agreement. On 31 March-1 April 1980, the hotel was seized in an armed military action and the management effectively taken over by PT Wisma. The Indonesian Capital Investment Board (BKPM) revoked PT Amco's Foreign Capital Investment Licence on 9 July 1980. The 1968 Management and Lease Agreement, and the 1978 Profit Sharing Agreement were rescinded by decision of the Jakarta Appellate Court in November 1983 in an action initiated by PT Wisma against PT Amco.

611. Canada uses this authority for the proposition that an investor will be considered to have failed to mitigate their losses if they do not make business decisions that would have reduced those losses when it was both reasonable and possible to do so. In this case, BKPM's decision of 9 July 1980 caused PT Amco "to lose its licence to engage in Business ventures in Indonesia. It did not in terms cause PT

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[561] International Law Commission, Draft Articles on Responsibility of States for Internationally Wrongful Acts, Report of the International Law Commission on the Work of its Fifty-third Session, UN GAOR, 56th Sess., Supp. No. 10, UN Doc. A/56/10 (2001) ("*ILC Draft Articles*").

[562] Final award of 5 June 1990 in case No. ARB/81/8 and Decision on Supplemental Decision and Rectification of 17 October 1990 ("*AMCO Asia Corp*").

Amco to lose all its rights under the Profit-Sharing Agreement of 6 October 1978 or the earlier Lease and Management Contract of 22 April 1968".[563]

612. As such, Indonesia argued that PT Amco could still have sold its interests in these contracts to a third party and that they should have done so to mitigate their losses. The Tribunal found that a transfer of PT Amco's rights could only take place with the consent of PT Wisma. Moreover, the Tribunal found that even "had PT Amco been entitled to assign its interests the events that had occurred since the beginning of April 1980 would have made it virtually impossible to find interested purchasers".[564] As such, the Tribunal found that there was no failure on PT Amco's part to mitigate damages.

613. To the extent that the legal authorities cited by Canada note only very general propositions of law, namely that an investor has a duty to mitigate loss when it is reasonable to do so, the Investor does not disagree. The authority cited by Canada for the proposition that an investor must make business decisions to reduce loss when it is reasonable and possible to do so, however, reverses the ratio of that case. In *AMCO Asia Corp.*, the tribunal actually concludes that there was no failure to mitigate and that it would have been impossible for the investor to make any other business decision. It is not authority for the converse proposition that the Investor's business decisions during the loss are to be judged in hindsight to decide whether those decisions actually mitigated the loss.

614. Canada correctly identifies the general duty to mitigate under international investment law. However, this "duty to minimize damage in principle only arises after the breach has occurred".[565] Thus, after a breach of the international legal

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[563] *Ibid,* at para. 78.

[564] *Ibid.* at para. 79.

[565] Peter Muchlinksi, Federico Ortino & Christoph Scheuer, eds., *The Oxford Handbook of International Investment Law* (Oxford: Oxford University Press, 2008) at 1096 ("*The Oxford Handbook*").

obligations found within the investment treaty occur "[t]he dilemma for the tribunal to solve is when such management failures exceed what could be termed 'normal' and 'expected' and acquire such gravity that they trigger the application of the damage mitigation concept".[566]

615. Therefore, the question to be considered is whether Chemtura undertook the necessary 'normal', 'expected' or 'reasonable' steps to mitigate their loss, after Canada's breach of its obligations, in light of relevant international investment jurisprudence.

616. The duty of Chemtura to mitigate would not include anticipating that Canada would wrongfully breach its agreement with Chemtura, deregister its remaining lindane-based products, or delay the approval process for replacement products. It is equally inappropriate for Canada to assert that Chemtura "should have focussed on developing and marketing effective alternatives earlier."[567] Lindane based products remained registered in the U.S. until 2006 (when Chemtura and others terminated them), and there was no duty on Chemtura to predict wrongful conduct by Canada truncating lindane-containing products' continued marketability.

617. Derain and Kreindler describe the duty to mitigate as follows:

> The principle of mitigation can be applied in a great variety of situations. But all these can be summarized in a simple formula: an aggrieved party must take steps to minimize his loss, on the one hand, and he must abstain from doing anything to increase his loss on the other.
>
> Along with this general idea, the following observation should be also taken into account: the party who ought to mitigate will not be held to an extraordinary standard of behaviour. The extent to which there should have been mitigation is a question of fact, and the plaintiff must take steps consistent with demands for **reasonable and prudent action**. The

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[566] *Ibid.* at 1097.

[567] Counter-Memorial, para. 932.

> plaintiff will not have to embark on a difficult and hazardous course of action, nor to act in such a way as to impair his commercial reputation.
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> [...]
>
> In practice, there are various examples of the application of the rule of reasonable behaviour in mitigating damages. In particular, a party is not bound to take steps to mitigate loss if such steps would be very expensive in relation to the loss to be avoided; he is not bound to engage in complicated litigation with third parties, even though its outcome might have been to reduce the loss ...
>
> [...]
>
> The current practice of applying the rule on mitigation provides evidence that this concept could and should be used flexibly.[568]
>
> [Emphasis added]

C. The Investor did not contribute to its own injury or loss

618. Contributory loss (also known as contributory fault or contributory negligence) exists when an investor's conduct has contributed to its own injury either by wilful or negligent actions. This has been held to have occurred where the investor has made unreasonable or imprudent business decisions or has failed to undertake reasonable due diligence prior to making its investment.

619. Where an investor is found to have contributed to its own injury, tribunals will exercise their discretion and reduce the award for damages proportionately. However, contributory fault will only award, it will not alter a finding, of liability against the Respondent.

620. Canada relies on Article 39 of the *ILC Draft Articles* as its basis for arguing that Chemtura contributed to any losses it incurred. Article 39 states:

> Contribution to the injury

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[568] Alexander S. Komarov, "Mitigation of damages" in Yves Derain and Richard H. Kreindler, eds., *Evaluation of Damages in International Arbitration* (Paris: International Chamber of Commerce, 2006) ("*Evaluation of Damages*").

> In the determination of reparation, account shall be taken of the contribution to the injury by wilful or negligent action or omission of the injury State of any person or entity in relation to whom reparation is sought.

621. Canada contends that any award for damages should be reduced to reflect the Investor's contribution to its loss. Canada characterizes "contribution to loss" as loss that was suffered due to "unwise business decisions" of the Investor and that the Investor failed to do its professional due diligence.[569]

622. Canada suggests five instances as the basis for its claim that the Investor contributed to its losses. It argues that Chemtura, and its affiliate Gustafson, precipitated the events leading to the closure of the U.S. border by alerting the U.S. authorities that the lindane treated seed was crossing the border. Canada also argues that the CWA was voluntary and thus Chemtura could have refused to participate in the agreement. Further, Canada argues that Chemtura's failure to invest in the development of a superior lindane replacement product at an earlier time was the result of a bad business decision and thus a contributing factor to Chemtura's loss.

623. With regards to the Special Review, Canada argues that not only did the Investor contribute to its loss by refusing to take advantage of the phase-out regime instituted after the Special Review, it also failed to take advantage of participating in the process during the Special Review. Furthermore, Canada relies on Chemtura's discontinuation of the application for judicial review of the Review Board process as an indication of Chemtura acquiescing to the overall process and an indication of contributory negligence.

624. In support of the arguments for contributory loss and negligence, Canada relies on two ICSID arbitral awards which held that the failure of the investor to perform their professional "due diligence" resulted in their contributing to their injury.

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[569] Canada's Counter-Memorial, at para 938.

625. In *MTD Equity and MTD Chile SA v. Chile,*[570] the tribunal, in determining the relevance of the investor's failure to take into account the relevant urban regulations and policies, held that the investor had contributed to its own injury by failing to undertake adequate "due diligence" and exercise business acumen in purchasing the site. Therefore the tribunal determined that the investor would bear 50% of the damages it had suffered and reduced the award by that amount.[571]

626. The ICSID Annulment Committee reviewed the MTD award and upheld the tribunal's findings of contributory fault. The Committee, however, emphasized the difficulty in apportioning fault given the wide degree of discretion enjoyed by the tribunals in the matter, holding that "in an investment treaty claim where contribution is relevant, the respondent's breach will normally be regulatory in character, whereas the Investor's conduct will be different, a failure to safeguard its own interest rather than a breach of any duty owed to the host State."[572]

627. International law has recognized the concept of contributory fault and its relevance in assessing awards for damages in the international investment law context. The current predominant approach centres on the apportionment of liability for damages between the claimant and the defendant where the claimant's fault has materially added (i.e. contributed) to the loss or damages sustained by the claimant due to the conduct of the defendant.

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[570] ICSID Case No. ARB/01/07, Award, 25 May, 2004).

[571] *Ibid.* at paras. 242-43.

[572] *MTD v. Chile,* ICSID Case No. ARB/01/07, Decision on the Application for Annulment (21 March 2007) at para. 101.

fault has materially added (ie. contributed) to the loss or damages sustained by the claimant due to the conduct of the defendant."[573]

629. The key tests are reasonableness and the prudence on the part of the investor.[574] Tribunals will, reduce compensation where unreasonable or impudent conduct by the claimant has contributed to the injury.

630. Tribunals must first determine whether the conduct of the claimant was indeed unreasonable or imprudent, and then they must determine to what extent the compensation should be reduced by in light of the degree of contribution to the damage. As stated in *The Oxford Handbook of International Investment Law*:

> The dilemma for the tribunal to solve is when such management failures exceed what could be termed 'normal' and 'expected' and acquire such gravity that they trigger the application of the damage mitigation concept.[575]

631. It is instructive to review international investment awards in which contributory fault was not found. In these instances, the tribunals held that the business conduct in question was reasonable and "normal" considering the circumstances at issue.

632. In *Enron Corporation and Ponderosa Assets v. Argentina,*[576] the Tribunal held that by dismantling the regulatory framework on which the Claimant's had legitimately relied at the time of making their investment, Argentina had violated the fair and equitable treatment obligation under the BIT in question. In assessing damages, the Tribunal rejected Argentina's contention that the aggressive

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[573] Sergey Ripinsky & Kevin Williams. *Damages in International Investment Law*. (London: British Institute of International and Comparative Law, 2008), at 314.

[574] *Ibid.* at 316.

[575] Muchlinski, (*The Oxford Handbook*) at 1097.

[576] ICSID Case No ARB/01/3, (Award 22 May, 2007)

leverage policy of the local company in which the claimant's held an interest had contributed to the injury suffered by the investor. The Tribunal held that the company had simply made reasonable business decisions that were consistent with industry standards and that the decrease in value of the claimant's interest came only after the governmental measure at issue was imposed. Therefore the Tribunal declined to find contributory fault.

633. The commentary of Article 39 of the *ILC Draft Articles* expressly states that contributory fault is a restrictive concept and thus does not completely negate the responsibility of the wrongdoer, holding that the contribution to the injury may influence the form or extent of the reparation granted.[577] When contributory fault is established, the award of damages is to be reduced proportionally with the injury caused by the claimant.

634. The specific actions of Chemtura alleged by Canada to have contributed to its losses fall far short of the standards articulated by the authorities cited by either party. In relation to the letter to the EPA pointing out the importation of lindane-treated seeds, Canada collapses Gustafson U.S. and Chemtura, two independently operated companies, in order to ascribe Gustafson's actions to the Investor for contributory fault purposes.[578]

635. Second, while EPA's response was to affirm its existing prohibition on lindane-treated seeds for planting, it had no effect on the permitted importation into the U.S. of products made from plants grown from those seeds. Canadian growers' concerns centered on these products, and PMRA's justifications for its actions were couched in terms of protecting that market, not the market for treated seems imports.

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[577] Sergey Ripinsky & Kevin Williams. *Damages in International Investment Law*. (London: British Institute of International and Comparative Law, 2008) ("*Damages in International Investment Law*").

[578] Canada's Counter-Memorial at para. 941.

636. Canada also implies that Chemtura contributed to its own injury by subscribing to the CWA, because it was "voluntary." In fact it was of course not voluntary, as the facts before the Tribunal demonstrate.

637. Finally, Canada alleges a lack of business acumen in the Investor relative to a competitor, in not developing an all-in-one seed treatment earlier. This allegation is particularly galling given that the Investor was the market leader with its lindane-based products and had no reason to develop a competing product, whereas of course its competitors did. This had nothing to do with expectations by its competitors regarding lindane's future. Chemtura's competitors had to develop alternative products if they hoped to obtain a portion of the valuable canola seed treatment market. The PMRA's actions in implementing a CWA and effectively destroying the lindane-based treatment market was a fortuitous (for them) event, welcomed by Chemtura's competitors. It is hardly surprising that Chemtura was a CWA "dissenter", as not only did it have the most to lose from withdrawal, but its competitors were positioned to gain most or all of what Chemtura was forced to abandon, a double benefit for them.

II. The Standard of Compensation

A. Standard of Compensation for Lawful versus Unlawful Expropriation

638. Beginning with the *Chorzow Factory* case decided by the Permanent Court of International Justice in 1928, a distinction has been drawn between the standard of compensation for lawful and unlawful expropriation. However, as noted below, some arbitral tribunals have not made a distinction between the two types of expropriations. In *Chorzow Factory*, the PCIJ held that:

> the compensation due to the German Government is not necessarily limited to the value of the undertaking at the moment of dispossession, plus interest to the day of payment. This limitation would only be admissible if the Polish Government had had the right to expropriate, and if its wrongful act consisted merely in not having paid the two Companies the just price of what was expropriated; in the present case, such a limitation [...] would

> be tantamount to rendering lawful liquidation and unlawful dispossession indistinguishable in so far as their financial results are concerned.[579]

639. Under customary international law, an expropriation is considered lawful when it is (1) for a public purpose; (2) non-discriminatory; (3) carried out under due process of law; and (4) accompanied by payment of compensation.[580] The NAFTA criteria for lawful expropriation listed at Article 1110(1) are similar to the customary international law criteria.[581]

640. According to commentators Sergey Ripinsky and Kevin Williams, "[t]oday, there is less controversy surrounding this issue [compensation for lawful expropriation] because the great majority of investor-State disputes are brought pursuant to investment treaties which typically fix a specific standard".[582] This is true of the NAFTA, which states in respect of lawful expropriations:

> 2. Compensation shall be equivalent to the fair market value of the expropriated investment immediately before the expropriation took place ("date of expropriation"), and shall not reflect any change in value occurring because the intended expropriation had become known earlier. Valuation criteria shall include going concern value, asset value including declared tax value of tangible property, and other criteria, as appropriate, to determine fair market value.[583]

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[579] *The Factory at Chorzow (Germany v. Poland) (Claim for Indemnity) (Merits),* (1928) PCIJ Rep, Series A No 17, 47.

[580] UNCTAD, *Taking of Property* 12-13.

[581] 1110(1) No Party may directly or indirectly nationalize or expropriate an investment of an investor of another Party in its territory or take a measure tantamount to nationalization or expropriation of such an investment ("expropriation"), except:

(a) for a public purpose;
(b) on a non-discriminatory basis;
(c) in accordance with due process of law and Article 1105(1); and
(d) on payment of compensation in accordance with paragraphs 2 through 6.

[582] Ripinsky and Williams, *Damages in International Investment Law,* at p. 71.

[583] NAFTA Article 1110(2).

641. NAFTA does not contain rules that speak to the standard of compensation for unlawful expropriation.

642. As mentioned, international law draws a distinction between compensation owed for lawful expropriations and unlawful takings. According to Ripinsky and Williams, it follows that "the award of compensation for unlawful taking is governed not by investment treaties, but by customary international law on State responsibility for international wrongful acts".[584]

643. This view was adopted by the arbitral tribunal in *ADC Affiliate Limited and ADC and ADMC Management Limited v. Republic of Hungary*:[585]

> [s]ince the BIT does not contain any *lex specialis* rules that govern the issue of the standard for assessing damages in the case of an unlawful expropriation, the Tribunal is required to apply the default standard contained in customary international law in the present case.
>
> [...]
>
> The customary international law standard for the assessment of damages resulting from an unlawful act is set out in the decision of the PCIJ in the *Chorzów Factory* case at page 47 of the Judgment which reads:
>
> "reparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed."
>
> Moreover, the PCIJ considered that the principles to determine the amount of compensation for an act contrary to international law are:
>
> "Restitution in kind, or, if this is not possible, payment of a sum corresponding to the value which a restitution in kind would bear; the award, if need be, of damages for loss sustained which would not be covered by restitution in kind or payment in place of it." (Page 47 of the Judgment.)

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[584] Ripinsky and Williams, Damages *in International Investment Law*, at p. 84.

[585] ICSID Case No. ARB/03/16, Award (2 October 2006).

> The tribunal reviewed a number of arbitral decisions which applied the customary international law standards set out in the *Chorzów Factory* decision.[586]

644. The tribunal in *ADC v. Hungary* also noted that the *Chorzów Factory* dictum is embodied in Article 31(1) of the International Law Commission's *Draft Articles on Responsibility of States for Internationally Wrongful Acts* ("*Draft Articles*").[587]

645. Article 31(1) provides that "[t]he responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act."[588] The Commission's Commentary of Article 31(1) states that "[t]he general principle of the consequences of the commission of an internationally wrongful act was stated by the Permanent Court in the *Factory at Chorzów* case".

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[586] The Tribunal went on to state:

> 489. Moreover, in CMS Gas Transmission Company v. The Argentine Republic, ICSID Award, Case No. ARB/01/8, 12 May 2005, the ICSID Tribunal stated in para.400 of its Award the following: "Restitution is the standard used to re-establish the situation which existed before the wrongful act was committed, provided this is not materially impossible and does not result in a burden out of proportion as compared to compensation."
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> 490. Similarly, in Petrobart Limited v. The Kyrgyz Republic, Arbitration No. 126/2003, Arbitration Institute of the Stockholm Chamber of Commerce (Energy Charter Treaty), 29 March 2005, the Tribunal held at pages 77 and 78 of its Award the following:
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> > "Petrobart refers to the judgment of the Permanent Court of International Justice in the Factory at Chorzów case and to the International Law Commission's Draft Articles on State Responsibility for Internationally Wrongful Acts in order to show that the Kyrgyz Republic is obliged to compensate Petrobart for all damage resulting from its breach of the Treaty. The Arbitral Tribunal agrees that, in so far as it appears that Petrobart has suffered damage as a result of the Republic's breaches of the Treaty, Petrobart shall so far as possible be placed financially in the position in which it would have found itself, had the breaches not occurred."
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> 492. For additional cases affirming and applying the Chorzów Factory standard for the assessment of damages in the context of expropriation of foreign owned property, see Amoco International Finance Corporation v. Iran, 15 IRAN–U.S. C.T.R. p.189 at p.246 (paras.191-194); and MTD Equity Sdn Bhd and MTD Chile SA v. Chile, ICSID Case No. ARB/01/7, 25 May 2004, para.238.

[587] *Ibid.* at para. 494.

[588] *Ibid.* at para. 493 quoting Article 31(1).

646. Aricle 36 of the *Draft Articles* provides that:

> 1. The State responsible for an internationally wrongful act is under an obligation to compensate for the damage caused thereby, insofar as such damage is not made good by restitution.
>
> 2. The compensation shall cover any financially assessable damage including loss of profits insofar as it is established.

647. The Commentary to Article 36 provides that:

> Compensation reflecting the capital value of property taken or destroyed as the result of an internationally wrongful act is generally assessed on the basis of the "fair market value" of the property lost. The method used to assess "fair market value", however, depends on the nature of the asset concerned.[589] [references omitted]

648. Although *Chorzow Factory* involved a legal dispute between States, several arbitral tribunals examining disputes between States and investors have followed the PCIJ's dictum. For instance, the tribunal in *Siemens A.G. v. The Argentine Republic*[590] found that Argentina's measures had the effect of unlawfully expropriating the claimant's investment in breach of the German-Argentina BIT.[591] The tribunal stated that the law applicable to the breach of such an obligation is customary international law and examined Article 36 of the *Draft Articles* as well as the *Chorzow Factory* dictum.[592] The tribunal held that:

> The key difference between compensation under the Draft Articles and the Factory at Chorzów case formula, and Article 4(2) of the Treaty [Germany-Argentina BIT] is that under the former, **compensation must take into account "all financially assessable damage" or "wipe out all the consequences of the illegal act" as opposed to compensation "equivalent to the value of the expropriated investment" under the Treaty**. Under customary international law, Siemens is entitled not just

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[589] *Ibid.* at para. 22 of Commentary to Article 36.

[590] ICSID Case No. ARB/02/8, Award (6 February, 2007).

[591] *Ibid.* at para. 349.

[592] *Ibid.* at para. 350.

> to the value of its enterprise as of May 18, 2001, the date of expropriation, but also to any greater value that enterprise has gained up to the date of this Award, plus any consequential damages.[593]

649. A similar reasoning was applied by Judge Brower in *Amoco Int'l Fin. Corp. v. Iran.*[594] The tribunal noted in that case that there is:

> in determining the practical consequences of the distinction between reparation of the damages caused by a wrongful expropriation and payment of compensation in case lawful expropriation. The legal issues of the two concepts are totally different and, logically, the practical methods to be used in order to derive the amount due should also differ. On this question, the principles enunciated by the *Chorzow Factory* case are equally important and have not lost their validity. [595]
>
> [...]
>
> One essential consequence of this principle [*Chorzow Factory* principle] is that the compensation "is not necessarily limited to the value of the undertaking at the moment of dispossession". [...] The difference is that if the taking is lawful the value of the undertaking at the time of the dispossession is the measure and the limit of the compensation, while if it is unlawful this value is, or may be, only part of the reparation to be paid. [596]

B. Arbitral Decisions making no Distinction between Lawful and Unlawful Expropriation

650. Ripinsky and Williams note that not all tribunals have made a distinction between the compensation for lawful and unlawful expropriations. They refer to *Wena Hotels Limited v. Arab Republic of Egypt,*[597] *Middle East Cement Shipping and Handling Co. S.A. v. Arab Republic of Egypt,*[598] and *Sedelmayer v. Russia*[599]

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[593] *Ibid.* at para. 352.

[594] Partial Award No. 310-56-3, 15 Iran-U.S. Cl. Trib. Rep. 189., 192. See also *AMINOIL*, 21 ILM at 1031.

[595] *Ibid.* at para. 194.

[596] *Ibid.* at para. 196.

[597] ICSID Case No. ARB/98/4, Award (8 December, 2000).

[598] ICSID Case No. ARB/99/6, Award (12 April, 2002).

where the tribunals "have ignored the issue of whether the expropriatory measure under review was lawful or unlawful and adopted the applicable BIT rule on compensation."[600] The tribunals in *Técnicas Medioambientales Tecmed, S.A. v. United Mexican States*[601] and *Metalclad Corporation v. United Mexican States*[602] similarly awarded compensation for indirect expropriations on the basis of the expropriatory clauses in the relevant treaties without resorting to customary international law.

C. Assessment of Compensation for Unlawful Expropriation

651. According to Ripinsky and Williams, "the starting point for the assessment of compensation for an unlawful expropriation is usually the same as for a lawful one: fair market value ["FMV"] of the investment taken". The tribunals in *ADC v. Hungary* and *Siemens v. Argentina* examined the FMV of the investment taken.[603] According to the authors:

> [t]he illegality of the expropriation may further affect arbitrators' discretionary judgment on various aspects of the damages quantification, in the sense that they may become less conservative in their assessment of compensation than in a case of lawful expropriation [...][604]

652. In *Siemens v. Argentina*, for instance, the Tribunal compensated for post-expropriation expenses by the claimant.[605]

[599] *Franz Sedelmayer v. The Russian Federation*, SCC Award, 7 July 1998.

[600] *Ripinsky and Williams, Damages in International Investment Law*, at p. 85.

[601] ICSID Case No. ARB(AF)/00/2, Award (29 May, 2003).

[602] ICSID Case No. ARB(AF)/97/1, Award (30 August, 2000).

[603] It must be noted that in *ADC v. Hungary*, the tribunal used the FMV of the investment at the date of the award because the investment has increased in value after the expropriation.

[604] *Ripinsky and William, Damages in International Investment Law*, at p. 87.

[605] *Siemens v. Argentina*, ICSID Case No. ARB/02/8, Award, (6 February, 2007) at 387.

653. Ripinsky and Williams also note that:

> [i]t has also been suggested that a difference in compensation for lawful and unlaful expropriation could lie in the compensability of lost profits (*lucrum cessans*). According to that view, expressed by the majority in *Amoco International Finance v. Iran*, lost profits must only be compensated in case of unlawful expropriation, while in case of lawful expropriation the State must only pay *damnum emergens*.[606]

654. However, as noted by the the authors, the approach in *Amoco v. Iran* was criticized in the literature and has not been taken up in subsequent decisions of international arbitral tribunals.[607] "Having its origins in the theory of contractual damages, this approach does not appear to be compatible with the notion of an investment's "value" which is not divisible into *damnum emergens* and *lucrum cessans*"[608]

D. Standard of Compensation for Non-expropriatory Breaches

655. The standard of compenstation for non-expropriatory breaches, unlike the standard for lawful expropriation is not contained in Chapter 11 of NAFTA or in BITs.[609] Commentators observed that:

> [w]here tribunals have found the respondent state liable for multiple breaches of a treaty, including expropriation, some have applied the standard of compensation dictated by the treaty for expropriation, on the theory that this measure provides the highest level of compensation,

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[606] *Ripinsky and Williams, Damages in International Investment Law*, at p. 87.

[607] *Ibid.* at pp. 87-88.

[608] *Ibid.*

[609] See *CMS Gas,* Award, at para. 410. "the Treaty offers no guidance as to the appropriate measure of damages or compensation relating to fair and equitable treatment and other breaches of the standards laid down in Article II. This is a problem common to most bilateral investment treaties and other agreements such as NAFTA."

> which makes it unnecessary to assess damages for other breaches that would yield lower levels of compensation.[610]

656. Commentators have observed that "[s]o far, tribunals have tended to gravitate, [...], towards analogy with either the expropriation standard or the breach of contract standard."[611] In *CMS Gas* the tribunal stated that:

> the cumulative nature of the breaches discussed here is best dealt with by resorting to the standard of fair market value. While this standard figures prominently in respect of expropriation, it is not excluded that it might also be appropriate for breaches different from expropriation if their effect results in important long-term losses. [612]

657. The ICSID tribunal in *Azurix Corp. v. Argentine Republic*[613] followed *CMS Gas.*

658. Christopher Dugan *et al.* specify that the latter approach seems to be applied in instances where "the effect of the breach of the respective non-expropriation standard of protection has been total or near-total deprivation of property rights, similar to that of an expropriation".[614] This was the case in *CMS Gas.*.

E. Standard of Compensation as the "Actual Loss" Incurred "As a Result" of the Wrongful Acts (i.e. Customary International Law Standard)

659. According to Ripinsky and Williams, customary international law applies to the violation of investment treaty obligations unrelated to expropriation when the treaty does not contain special rules on awarding compensation arising out such a

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[610] Christopher F. Dugan, *et al.*, *Investor-state Arbitration* (New York: Oxford University Press, 2008) at p. 579.

[611] Peter Muchlinski, Federico Ortino and Christoph Shreuer, eds., *International Investment Law* (New York: Oxford University Press, 2008) at p. 1082.

[612] *CMS Gas Award* at para. 410.

[613] *Azurix Corp.* Award at paras. 420 and 424.

[614] *Dugan, Investor-State Arbitration*, at p. 579.

violation.[615] In support, they quote the tribunal in *AMT v. Zaire* where the tribunal referred to the international law requirement that compensation must "restore to the investor the conditions previously existing if the event had not occurred."[616]

660. This view is consistent with the NAFTA decision of *S.D. Myers v. Canada* where the tribunal stated that:

> [b]y not identifying any particular methodology for the assessment of compensation in cases not involving expropriation, the Tribunal considers that the drafters of the NAFTA intended to leave it open to tribunals to determine a measure of compensation appropriate to the specific circumstances of the case, taking into account the principles of both international law and the provisions of the NAFTA.[617]

661. The tribunal in *S.D. Myers* further observed that "whatever precise approach is taken, it should reflect the general principle of international law that compensation should undo the material harm inflicted by a breach of an international obligation."[618] This statement is consistent with Article 36 of the *Draft Articles* which is an enunciation of customary international law.

662. Tribunals that have found a breach of the fair and equitable treatment standard or denial of national treatment that do not have effects similar to expropriation have, according to Dugan *et al*, developed case-specific methodologies to decide on the standard of compensation.[619] In *Occidental Exploration & Prod. Co. v. Ecuador,*[620] for instance, the tribunal held that Ecuador had breached, *inter alia,*

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[615] *Ripinsky and Williams, Damages in International Investment Law*, at p. 89.

[616] *American Manufacturing and Trading, Inc. v. Zaire*, ICSID Case No. ARB/93/1-Award, 21 February 1997 at para. 6.21.

[617] *S.D. Myers* Partial Award, at para. 309.

[618] *Ibid.* at para. 315.

[619] *Dugan ,Investor-State Arbitration*, at p. 580. See also *Muchlinski, International Investment Law,* at p. 1087.

[620] London Court of International Arbitration (LCIA) Case No. UN3467, Final Award, July 1, 2004.

fair and equitable treatment obligations and awarded the claimant what it sought: the reimbursement of taxes. Thus, the tribunal applied the customary international law standard that compensation should reflect the actual loss incurred as a result of the wrongful act.

663. In *Siemens v. Argentina*, the tribunal held that there had been both an unlawful expropriation by Argentina and a breach of Argentina's obligation under the BIT to provide fair and equitable treatment and full protection and security.[621] According to the tribunal, "[t]he law applicable to the determination of compensation for a breach of such Treaty obligations is customary international law."[622] The tribunal held that "[u]nder customary international law, Siemens is entitled not just to the value of its enterprise as of [...] the date of expropriation, but also to any greater value that enterprise has gained up to the date of this Award, plus any consequential damages."[623] This additional compensation was explained as follows by the tribunal:

> [t]he key difference between compensation under the Draft Articles and the Factory at Chorzów case formula, and Article 4(2) of the Treaty [expropriation] is that under the former, compensation must take into account "all financially assessable damage" or "wipe out all the consequences of the illegal act" as opposed to compensation "equivalent to the value of the expropriated investment" under the Treaty.[624]

664. In *MTD Equity,* the tribunal held that Chile had breached its obligation to provide fair and equitable treatment to the investor. Chile had initially issued a development license to the claimant but it was subsequently discovered that the claimant's project did not comply with local zoning regulations and the local

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[621] *Siemens*, Award, at para. 349.

[622] *Ibid.* at para. 349.

[623] *Ibid.* at para. 352.

[624] *Ibid.* at para. 352.

authorities refused to rezone the area. The tribunal applied the *Chorzow Factory* dictum:

> [t]he Tribunal first notes that the BIT provides for the standard of compensation applicable to expropriation, "prompt, adequate and effective" (Article 4(c)). It does not provide what this standard should be in the case of compensation for breaches of the BIT on other grounds. The Claimants have proposed the classic standard enounced by the Permanent Court of Justice in the Factory at Chorzów: compensation should "**wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that had not been committed.**" The Respondent has not objected to the application of this standard and no differentiation has been made about the standard of compensation in relation to the grounds on which it is justified. Therefore, the Tribunal will apply the standard of compensation proposed by the Claimants to the extent of the damages awarded.[625] [emphasis added]

665. The losses claimed by Chemtura in this case are its losses incurred by the eradication of its lindane seed treatment business and the income from it that it would have expected to continue to receive but for the action of Canada. Whether viewed as an expropriation, or as elimination of the investment through breach of a mimimum standard of treatment, this standard ofcompensation recognizes Chemtura's actual losses.

III. Valuing the Investor's Losses

A. The Definition

666. Generally, FMV is understood as:

> the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arms length in an open and unrestricted market, when neither is under compulsion to buy both have reasonable knowledge of the relevant facts.[626]

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[625] *MTD, Award,* at para. 238.

[626] *CMS Gas, Award,* at para. 402 citing the International Glossary of Business Valuation Terms, American Society of Appraisers.

667. According to Ripinsky and Williams, there are five methods of valuation. These are the:

(a) Income-based approach (DCF Method) which calculates the present value of a business's anticipated cash flows.

(b) Market-based approach which determines the value of a business by comparing it to similar businesses, business ownership interests, or securities that are sold on the open market.

(c) Asset-based approach which values tangible and intangible assets comprising a business and aggregates these separate values to arrive at the value of the business.

(d) Valuation by Reference to the Amounts Invested.

(e) Hybrid Approach.[627]

B. Income-based Approach - Discounted Cash Flow Method

668. The Discounted Cash Flow method ("DCF method") has been accepted by many tribunals as a valuation method to determine FMV.[628] Professor Marboe describes the method as follows:

> [t]he DCF method follows the "income approach". According to this approach the value of an object does not depend on historical cost but is equivalent to its ability to create financial benefits for the owner in the future. A hypothetical willing buyer of an object will not normally be interested in what the former owner has spent on the object but in what can be gained from it in the future. The fair market value is therefore not based on historical data but on future expectations.[629]

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[627] *Ripinsky and Williams, Damages in International Investment Law*, at pp. 193, 226, 231.

[628] *ADC,* Award, at p. 95. The DCF method has also been accepted in the following cases: *CME Czech Republic B.V. (The Netherlands) v. Czech Republic*, Final Award, March 14 2003 (as a subsidiary method); *CMS Gas, supra* note 609; *Sempra Energy International v. The Argentine Republic*, ICSID Case No. ARB/02/16, September 28, 2007; *Starrett Housing Corp. v. Iran,* 16 Iran-US CTR 112 August 14, 1987.

[629] Irmgard, Marboe, "Compensation and Damages in International Law" (2006) 7:1 J.W.I.T. 723 at 736.

669. In *Amoco International Finance v. Iran,* the tribunal described the DCF method as consisting of the two following steps:

> [t]he first step in valuing an asset pursuant to the DCF method must be to project from the valuation date onward the most likely revenues and expenses of the ongoing concern, year by year. The revenues less the expenses will give the future net cash flow. The second step will be to discount the projected net cash flow to its "present value" as of the valuation date. To this end it will be necessary to determine the proper discount rate, taking into account the probable risks, inflation and the real rate of interest. The factor of inflation, however, can be discarded in consistently using a currency of constant purchasing power [...].[630]

670. Ripinsky and Williams observe from their review of arbitral jurisprudence that:

> the key factor in whether the DCF method will be accepted by a tribunal in a specific dispute is the amount of evidence demonstrating the likelihood of projected cash flows actually being realized. The standard of proof in this respect appears to be rather high. So far, the tribunals have treated the historical data of an enterprise's profitable operations as the best support for future projections.[631]

1) Decisions Applying the Discounted Cash Flow Method

671. The DCF method was accepted as the valuation method by the tribunal in *ADC v. Hungary*. The tribunal noted that this method was preferable to the Balancing Payment method proposed by the respondent because the latter "does not take into account, at least not sufficiently, the remaining term of the investments."[632]

672. In *CMS Gas*, *Enron v. Argentina* and *Sempra Energy v. Argentina*, the tribunals found that Argentina's measures constituted, *inter alia,* violations of the fair and equitable treatment standard under the BITs. The tribunal in *CMS Gas* explained its decision to apply the DCF method as follows:

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[630] *Amoco,* Award, at para. 213.

[631] *ADC,* Award at p. 211.

[632] *ADC,* Award, at p. 95.

- the company had been and remained is a going concern;
- DCF techniques have been universally adopted, including by numerous arbitral tribunals, as an appropriate method for valuing business assets;
- there was adequate data to make a rational DCF valuation.[633]

673. The facts in this case, in Chemtura's submission, militate for the application of this method of valuation. Aside from the well-established acceptance of this method generally, there are adequate historical data to establish the profitability and projected earnings of the investment in issue, and other businesses of Chemtura in Canada have remained a going concern throughout the period. This is, of course, the method that was applied by Chemtura's expert valuators in this case, and is in Chemtura's submission, the most appropriate to capture future income based on "historical data of an enterprise's profitable operations…".

2) **Decisions Rejecting the Discounted Cash Flow Method**

674. Arbitral tribunals have not categorically accepted the DCF method.[634] According to Ripinsky and Williams, tribunals have rejected the method for the following reasons:

a) lack of sufficiently long performance record;

b) failure to establish future profitability of the investment;

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[633] *CMS Gas, Award* at paras. 416-7.

[634] The following decisions have rejected the DCF method: *Tecnicas Medioambientales TecMed S.A. v. United Mexican States*, Award, ICSID Case No. ARB(AF)/00/2, May 29, 2003 ("*Tecmed*") ; *Wena Hotels Ltd. v. Arab Republic of Egypt*, ICSID Case No. ARB/98/4, Award on Merits, December 8, 2000 ("*Wena Hotels*"); *Autopista Concesionada de Venezuela, C.A. v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB/00/5, September 23, 2003; *Metalclad Corporation v. United Mexican States,* NAFTA ICSID Case No. ARB (AF)/97/1, August 30, 2000 ("*Metalclad*") ; *Compania de Aguas del Aconquija SA and Vivendi Universal SA v. Argentina*, Award, ICSID Case. No. ARB/97/3, August 20, 2007 ("*Vivendi*"); *Amoco International Finance v. Iran, supra* note 594.

c) lack of sufficient finances to complete and operate the investment; and

d) large disparity in the amount actually invested and the FMV claimed.[635]

675. None of the deficiencies observed by Ripinsky and Williams are present in this case. Chemtura's operation in Canada generally, and the lindane-based seed treatment business in particular, had a lengthy history of profitability until the state actions complained of. Chemtura at all material times was of course operating the investment and the FMV claimed is objectively demonstrable based on historical data in the record.

IV. LECG Report

676. The Valuation firm LECG has prepared a supplementary report in these proceedings (*Damage Assessment in Chemtura Corporation v. Government of Canada – A Supplemental Report,* dated May 15, 2009), ("LECG Supplementary Report") which replies to Canada's submissions in connection with LECG's initial report of June 2, 2008.

677. The LECG Supplementary Report substantially confirms the appropriateness of the methodology chosen to value the Investor's losses. It also takes account of reasonable objections and observations in relation to LECG's initial report. As a result of these minor emendations, Chemtura's damages have been reduced by slightly less than 2%, or US$1.6 million. The actual summary figures are shown in the Table below.

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[635] *Ripinsky and Williams, Damages in International Investment Law,* at p. 206ff. Refer to pages 206ff for a review of the decisions where the DCF method was rejected.

Table 1: Updated Damage Estimates (In millions US$ of June 30, 2008)

	Damages From Canola	Damages From Non-Canola	Total
Damage From Crompton		*Million US$ of Jun 30, 2008*	
(+) But-For Net Sales	[***]	[***]	[***]
(-) But-For Variable Costs	[***]	[***]	[***]
(-) Additional EPA Registration Cost	[***]	[***]	[***]
(-) But-For Income Tax	[***]	[***]	[***]
Total But-For Cash Flows	[***]	[***]	[***]
(-) Actual Cash Flows	[***]	[***]	[***]
Damage From Crompton	[***]	[***]	[***]
Damage From Gustafson Partnership			
(+) Gustafson But-For Net Sales	[***]	[***]	[***]
(-) Gustafson But-For Variable Costs	[***]	[***]	[***]
(-) Gustafson But-For Income Tax	[***]	[***]	[***]
Total Gustafson But-For Cash Flows	[***]	[***]	[***]
(-) Actual Gustafson Cash Flows	[***]	[***]	[***]
Damages to Gustafson Partnership	[***]	[***]	[***]
Crompton's Share in Gustafson	50%	50%	50%
Damage To Crompton From Gustafson Partnership	[***]	[***]	[***]
Total Damage To Chemtura in US$ of Jun 30, 2008	72.8	5.8	78.6

Source: LECG Updated Valuation Model.

678. Much of Canada's and its Valuation firm's criticism of LECG's initial report was actually directed to the factual assumptions related to legal and regulatory and developments and projections. These assumptions were of course directed by Chemtura and not amenable to second guessing by LECG, as beyond the scope of their mandate and expertise. In short, the assumptions accepted by LECG and complained of by Canada went to the merits of the case, and not the valuation of damages.

679. Canada's valuation witness also alleges that LECG's initial report erroneously attributed some damages to Canada that were properly attributed to the U.S., and the U.S. regulator's actions in not registering the pesticides uses there. Part of

Chemtura's factual case, however, is that the attempt to obtain registration (or tolerances) in the U.S. was abandoned by Chemtura because its market in Canada (the real purpose of the U.S. registration effort) was destroyed by Canada's actions, making access to the U.S. market for lindane-treated seeds and products made for them moot.

680. Canada also argues that some or all of Chemtura's damages from the loss of its lindane business was attributable to the market abandoning lindane-based pesticides due to various negative health and environmental perceptions. This assertion is belied by both the market's (the growers and users) contemporaneous statements at the material times regarding their reasons for abandoning lindane use, as well as PMRA's own statements at the time as to its role and purpose in the matter. In brief, PMRA deployed its regulatory powers in the service of a trade-related dispute from the time of the MOU with the U.S. up to the deregistration of products and the flawed Special Review. The losses sustained by Chemtura were not caused by a market-led decline in sales.

681. Canada has also alleged that had Chemtura's lindane based products been temporarily absent from the Canadian seed treatment market (per LECG's but-for scenario), the competitive battle to re-enter would have diminished the profitability of the business, and thus the damages payable. This allegation disregards an important reason for the success of Chemtura's products: they were more effective and far less expensive than their (few) competitors. Absent the U.S. trade issue and PMRA's peremptory actions, the more plausible assumption is that the market would do what it had done before: choose the most effective and economical legal alternative.

682. Canada also disputes the valuation results of LECG's analysis, but without reference to any other analysis. In its conclusions as to the reduced value of Chemtura's lindane business, and thus of damages payable as a result of its destruction, Canada assumes that the lindane-based seed treatment business would have dropped in value to zero or very little at various dates from 1998 to 2006.

Canada's arguments are therefore not directed at LECG's valuation exercise, but at aspects of Chemtura's factual case, such as the vigour of the canola seed treatment market until 1999, the causes of the drop in useage by 2001, the likelihood of obtaining a lindane tolerance or registration for canola uses, and so on. Accordingly, to the extent that Canada's valuation critiques are disputes about assumptions that are part of Chemtura's case, as such, they are to no effect in impugning LECG's methodology.

V. Interest

683. Chemtura is entitled pre-award compound interest on the amount awarded from the date of expropriation or of damages materializing. As previously noted this was at the end of February 2002 for the non-canola lindane seed treatment business, and in January 2003 for the canola based business.

684. Notwithstanding Canada's assertion to the contrary, Chemtura relies on the authorities cited in its Memorial for the proposition that interest should be granted on a compound basis. [636]

685. Contrary to Canada's assertions, the Investor did indeed borrow money and incur debt as a result of Canada's conduct, since the loss of its lindane seed-treatment business had obviously a negative and serious financial impact on the company. We submit that compound interest is necessary to effect appropriate reparation.

VI. Costs

686. In its submissions, Canada makes the astonishing claim that it should be awarded both its arbitration costs and its legal costs "regardless of the outcome of the arbitration." In order to accede to this request, the Tribunal could be in the position of finding that Canada had breached its international obligations, and

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[636] Investor's Memorial at para. 572.

wrongly deprived the Claimant of its investment, yet be awarded its costs, legal and arbitral, for having done so. Naturally Canada can cite no authority for this demand.

687. Chemtura will be making submissions on costs at the conclusion of the hearing of the matter; for purposes of the Reply, it is sufficient to observe that Article 40 of the applicable UNCITRAL Rules permit the award of costs, where it is reasonable to do so.

VII. Relief Sought

688. The Investor claims:

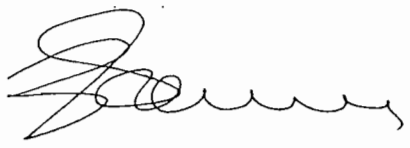
(a) Damages for breach of Articles 1105, 1103 and/or 1110 in the amount of US$78,593,520;

(b) Its costs of this arbitration including expert and legal fees and disbursements, as well as applicable taxes thereon;

(c) Pre- and post-award compound interest on the sums claimed in subparagraphs (a) and (b).

ALL OF WHICH IS RESPECTFULLY SUBMITTED

DATED at Ottawa, this 15th day of May 2009.



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