TITLE: Exporting Ignorance: Canada's Opposition to the Regulation of the International Chrysotile Asbestos Trade Under the Rotterdam Convention

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Introduction

1 Canada has long been viewed as a leader in matters of public health, human rights, and general public welfare. This position has allowed Canada a relatively strong voice on the international stage in many areas of public policy. On one issue however, Canada has stepped down from its customary ethical and moral high ground in order to actively promote an industry in a downward spiral due to the severe health effects of its products.

2 The Canadian asbestos industry dominated the world trade in asbestos for most of the 20th Century. Today, Canada continues to be one of the top five chrysotile producing and exporting countries in the world. Chrysotile asbestos is the only type of asbestos that remains in widespread production across the planet. The ill effects of this type of asbestos on human health have been hotly debated for several decades. Recently however, a broad scientific consensus has emerged that suggests chrysotile is a human carcinogen and cannot be used in a manner that is safe to human health. The risk that chrysotile and other forms of asbestos pose to human health extends beyond cancer, however. In addition to lung cancer, asbestos exposure can cause: asbestosis, a lung disease resulting from the inhalation of asbestos fibres; mesothelioma, an aggressive and fatal tumour derived from mesothelial cells; and benign pleural disease, a condition where collagen deposited in the lungs may calcify.1 The plethora of asbestos-caused medical conditions is even more startling knowing an estimated 125 million people around the world continue to be exposed to asbestos in the workplace.2 However, the Government of Canada, along with the asbestos industry, deny the health risks of chrysotile asbestos, and continue to support its production and export.

3 This position is a major point of contention in the international community, especially in the context of the Rotterdam Convention,3 an international agreement that protects the right of states to
refuse imports of certain dangerous substances that are listed in the Convention. Canada has led a
group of asbestos exporting countries that refuse to allow chrysotile to be classified as a dangerous
substance under the Convention. To date, there have been four attempts to list chrysotile, and all
have been blocked by the Canadian delegation to the Convention.

4 The main thrust of this paper is that there is no legitimate rationale for Canada's opposition to
chrysotile being listed in the Convention. First, the scientific basis of Canada's position has been
refuted by a growing scientific consensus. Second, the Canadian asbestos industry is now so small,
employing fewer than 900 workers nationally, that a complete shutdown of the industry would not
be a significant hit to the Canadian economy. However, with the industry now existing almost
completely within Quebec, the failure to support this discredited industry could have a serious
political impact on whatever party is in government. Third, Canada is now at odds with the majority
of the world on this issue, and risks losing its world leadership role through its continued opposition
to the chrysotile listing.

5 In addition to these issues with respect to the Convention, Canada has gone head to head with
other states over proposed bans on asbestos, both in domestic courts and in front of a World Trade
Organization (WTO) dispute panel. 4 Last, apart from the moral debate over whether Canada should
support the continued export of chrysotile, there is little evidence to suggest that listing chrysotile in
the Convention would even have a negative effect on the Canadian asbestos industry. The way in
which Parties have reacted to the listing of other chemicals, as well as the overall goals of the
Convention, suggest that the Convention may have little or no effect on Canada's chrysotile exports.

6 The first part of this paper will briefly describe the structure and procedure of the Convention,
outlining its important articles. Part two will examine Canada's policy towards chrysotile generally,
and with regard to chrysotile and the Convention specifically. Part three will outline the growing
global consensus that is completely opposed to Canada's position on chrysotile. Lastly, part four
will look at the potential effects listing chrysotile may have on Canada's exports.

I. The Rotterdam Convention

7 On September 10, 1998, the text of the Convention was adopted by a Conference of Parties in the
Netherlands. 5 The Convention was a result of the significant increase in the global chemical trade
since the 1980s and the concern that many developing nations were unequipped to monitor their
imports and the potential adverse health effects of those imports. 6 The Convention, which came into
force on February 24, 2004, was spearheaded by the United Nations (UN) as a "legally binding
multilateral agreement to promote shared responsibilities in relation to importation of hazardous
chemicals."

8 The Convention transformed the pre-existing voluntary Prior Informed Consent (PIC) procedure
that existed under both the International Code of Conduct on the Distribution and Use of Pesticides 8
and the London Guidelines for the Exchange of Information on Chemicals in International Trade, 9
into the legally binding PIC procedure that exists today. 10 The voluntary procedure had been
introduced to the International Code and the London Guidelines in 1989 to allow importing countries to deny future imports of hazardous substances that had been banned or severely restricted in other countries. However, the voluntary procedure became redundant with the implementation of the Convention, and therefore was removed in revisions to the International Code and the London Guidelines. Both of these agreements, as well as the Convention, are operated jointly by the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Environment Programme (UNEP). When the decision was made to pursue a legally binding solution, the Convention attracted the support of a large number of states, and by 2006, 73 countries were signatories and 111 were parties.

9 The PIC procedure is outlined in the text of the Convention, and there are several important Articles to consider. Article 1 conveys the broad objective of the Convention, stating that it is:

[T]o promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.

10 From this broad objective, it is clear that the focus of the Convention is on the exchange of knowledge and information on hazardous chemicals and not on trade restriction. In this vein, McCulloch and Tweedale state "[t]he multilateral agreement... does not prohibit trade, but merely sets guidelines, in terms of knowledge and consent".

11 The next significant provision of the Convention is Article 3, which outlines the scope of the Convention. It states that the Convention applies to "[b]anned or severely restricted chemicals" and to "[s]everely hazardous pesticide formulations." For the purposes of this paper and its focus on chrysotile asbestos, the former category is the most pertinent. Article 2 contains the Convention's definitions, several of which are helpful. It defines a "chemical" as "a substance whether by itself or in a mixture or preparation and whether manufactured or obtained from nature, but does not include any living organism." A "banned chemical" is defined as:

[A] chemical all uses of which within one or more categories have been prohibited by final regulatory action, in order to protect human health or the environment. It includes a chemical that has been refused approval for first-time use or has been withdrawn by industry either from the domestic market or from further consideration in the domestic approval process and where there is clear evidence that such action has been taken in order to protect human health or the environment.

12 Article 2 defines a "severely restricted chemical" as:
[A] chemical virtually all use of which within one or more categories has been prohibited by final regulatory action in order to protect human health or the environment, but for which specific uses remain allowed. It includes a chemical that has, for virtually all use, been refused approval or been withdrawn by industry either from the domestic market or from further consideration in the domestic approval process, and where there is clear evidence that such action has been taken in order to protect human health or the environment.\textsuperscript{19}

\textbf{13} Under the above definitions, chrysotile is a "chemical", and has been either "banned" or "severely restricted" in various countries.\textsuperscript{20} Another important definition is that of "final regulatory action", which is "an action taken by a Party, that does not require subsequent regulatory action by that Party, the purpose of which is to ban or severely restrict a chemical."\textsuperscript{21}

\textbf{14} The Convention also establishes three main bodies. There is the Conference of the Parties (COP), the Secretariat, and the Chemical Review Committee (CRC). The COP consists of all Parties to the Convention. The COP meets to add or remove chemicals from the Convention list, as well as to make amendments to the Convention itself. The Secretariat acts as the main administrative body of the Convention. Its functions are performed jointly by the FAO and UNEP.\textsuperscript{22} Finally, the CRC is a body of experts in chemical management, appointed by the COP to review listing decisions made by the COP.\textsuperscript{23}

\textbf{15} With these terms defined, the PIC procedure is relatively simple to describe. The Parties to the Convention are divided into seven PIC Regions. These regions are: Africa, Asia, Europe, Latin American and the Caribbean, the Near East, North America, and the South West Pacific.\textsuperscript{24} Interestingly, Mexico forms part of the Latin American region, leaving only Canada and the United States to make up the North American region.

\textbf{16} The function of the region system is found in Article 5. This article states that when the Secretariat has received at least one notification of a final regulatory action from each of two PIC regions, the Secretariat shall forward these notifications to the CRC for further consideration.\textsuperscript{25} In other words, if two Parties in different PIC regions take a legislative or regulatory action that bans or severely restricts a certain chemical, the chemical is put before the CRC, which conducts the next step of the procedure.

\textbf{17} Upon receipt of the aforementioned notifications, the CRC must review the information included by the Parties and then make a recommendation to the COP whether to include the chemical in the list of substances subject to the PIC procedure, which is found in Annex III to the Convention.\textsuperscript{26} If the CRC recommends that a chemical be added to Annex III, then it must also provide a "draft decision guidance document"\textsuperscript{27} which explains their recommendation to the COP.

\textbf{18} After the CRC recommends the addition of a chemical to Annex III, it sends the recommendation and draft decision to the COP, which makes the final decision to approve the draft decision and add the chemical to Annex III.\textsuperscript{28} This decision must be a consensus of the Parties.
Reaching a consensus has been the main stumbling block to listing chrysotile in the Convention.

19 Once the COP adds a chemical to Annex III several obligations arise, both with respect to importing and exporting. Article 10 outlines the obligations in relation to importing. Subsequent to the listing of a chemical in Annex III, a Party must "transmit to the Secretariat, as soon as possible ... a response concerning the future import of the chemical concerned."29 Article 10(4) prescribes the form of potential responses with respect to imports. The response must consist of either a final decision, pursuant to legislative or administrative measures, or an interim response.30 Within these decisions, a Party must indicate whether it consents to future imports, refuses to consent to future imports, or consents to future imports subject to specific conditions.31

20 Article 10(9) adds a critical caveat to a decision to refuse future imports of a chemical, wholly or with conditions. It states that if a Party chooses one of the refusal options it "shall, if it has not already done so, simultaneously prohibit or make subject to the same conditions: (a) Import of the chemical from any source; and (b) Domestic production of the chemical for domestic use."32 This provision reflects the importance of the WTO's two core non-discrimination principles in the Convention, preventing a party from using the Convention to violate the most favoured nation or national treatment principles.33

21 The last important provision with regard to the PIC procedure is Article 12, which places certain obligations on a country that is exporting a chemical that is banned or severely restricted in its own territory. If such a situation arises, the exporting country is obligated to provide an export notification to the importing Party, which must include information on precautionary measures that should be taken to reduce exposure to the chemical.34 The export notice must also include any information provided to the Secretariat in the country's notice of final regulatory action.35

22 The PIC procedure is the main instrument of the Convention. This procedure, outlined above, is relatively straightforward and to the extent that it may restrict trade, it does so within the spirit of the WTO.

23 The following parts of this paper will analyze Canada's position regarding the addition of chrysotile asbestos to the Convention and the debates that have arisen as a result. Before examining Canada's specific policy with respect to the Convention, however, it is necessary to examine the Government of Canada's policy regarding chrysotile asbestos generally, and its role in promoting the global asbestos trade. Such an examination will shed some light on the justification behind Canada's position at the Convention.

I. The Government of Canada's Policy on Chrysotile Asbestos

a. Generally

24 Throughout most of the 20th Century, Canada was the preeminent player in the global asbestos trade. Today, chrysotile asbestos is the only type of asbestos mined, milled and exported around the
The Russian Federation is the world's current leader in chrysotile exports, but only eclipsed Canada around the turn of the 21st Century. As recently as 2006, Canada exported 161,000 tonnes of chrysotile to approximately 70 different countries around the world. These exports brought in revenue in the area of $112 million for that year.

While Canada continues to be a leader in chrysotile production, very little of the product is put to use domestically. Statistics from 2007 suggest that Canada exports approximately 95% of the chrysotile extracted from the country's only two mines, both of which are located in Quebec. The export orientation of Canada's chrysotile products should not be surprising, as its use in Canada is prohibited in most consumer products, and highly regulated in terms of mining and milling. These chrysotile exports have been a major revenue source for the economy of Quebec for decades; but recent employment numbers indicate that the industry now directly employs less than 900 workers. The reason for these dwindling numbers is that the asbestos market has essentially collapsed across the industrialized world, mainly due to public health concerns. The story is quite different across the developing world, however, where consumption has continued to increase dramatically. In 2004, Canada exported over 95% of its chrysotile products to developing countries, with almost 70% of those exports going to Asia. The growth in the developing world's consumption has been no coincidence because "besides dominating world trade in asbestos, Canada has aggressively promoted the use of asbestos in developing countries and has used its influence in international forums to protect its export markets."

In a recent editorial published by the Canadian Medical Association Journal, the Government of Canada was labelled as "more than just a major asbestos exporter" because they had become "an avid asbestos cheerleader", desperately trying to keep the industry alive. The driving force behind this statement is the Government's continued economic and political support for the industry-sponsored Chrysotile Institute, formerly known as the Asbestos Institute. Much of the international asbestos lobbying comes from the Chrysotile Institute, which "is a joint venture of the asbestos mining industry and the government[s]" of Canada and Quebec. According to the Government of Canada, it contributed $19,206,529 to the Chrysotile Institute over the years 1984 to 2007. Moreover, in 2003, Ottawa increased its funding to the Chrysotile Institute by approximately $258,000 per year for the following three years to help the Institute further its global asbestos campaigns. McCulloch and Tweedale have suggested that the Chrysotile Institute is now being sustained only by its federal subsidy, which in effect means that the Government is paying the asbestos industry to lobby the Canadian legislature with regard to chrysotile policy.

The Chrysotile Institute has consistently been criticized by domestic and international commentators for "maintaining industry-controlled conferences and spreading discredited propaganda" with respect to chrysotile's health risks and its potential for safe use. Robert Procter has coined and used the term "the social construction of ignorance" to describe the lobbying strategies of tobacco and asbestos companies in veiling the health risks of their products, and this is exactly what the Chrysotile Institute has been accused of doing with its promotion of the controlled use approach to chrysotile. This will be discussed more fully below.
In addition to the Government of Canada's support for the Chrysotile Institute, it has taken several other proactive steps to help the asbestos industry. Since 1978, the Government has spent over half a billion dollars on state takeovers and subsidies to bailout the industry. Furthermore, when the industry was working to refocus their exports on the developing world, a problem arose: many developing countries lacked the foreign currency necessary to pay for asbestos imports. As a result, the industry worked with a vast array of development agencies, including the Canadian International Development Agency, to create development projects that would use asbestos products. Canada and its development agency were engaging in contingency based aid programs, whereby it was required that Canadian asbestos products be used in their development programs.

These examples demonstrate the Government of Canada's keen interest in promoting the global asbestos trade. Whether it is through direct aid to a controversial lobby group, government takeovers and bailouts, or tied aid programs, Canada has been strongly supporting the industry for the last several decades. This interest in an industry as controversial as asbestos may seem somewhat unusual, and in fact Ken Rubin has written that "[n]o other product has received such a semi-official federal endorsement" from the Government, but "pressure to do this [has come] from the [Chrysotile] Institute, much of whose funding comes from Ottawa, and from MPs whose ridings were in the Quebec asbestos mining region."

With a clear downward trend in asbestos production and employment in recent decades, it is likely that the motivating factors behind this support are not wholly economic. The asbestos industry is concentrated in Quebec, and that province serves as a critical electoral base for any Government of Canada. Therefore, maintaining support in Quebec and that province's delicate position in the federation, are considerations as much, if not more so, than maintaining the few jobs that remain in the industry. The importance of Quebec's influence on this issue cannot be understated. These political considerations will be evidenced by the overall apathetic attitude of the Parliament of Canada towards chrysotile, with the exception of members of the Bloc Quebecois (BQ) and select individual MPs. These considerations are so essential to the Government of Canada that they have felt it necessary to lead the charge against the international regulation of chrysotile in the Convention, which contrasts starkly with the country's domestic policy of regulation.

b. Chrysotile Asbestos and the Rotterdam Convention

In addition to the aforementioned domestic support for the asbestos industry, Canada also "exerts diplomatic pressure on behalf of the industry, funds legal challenges, and defends against economic threats" to ban the use of chrysotile. Currently, Canada is the only Western democracy to resist the addition of chrysotile asbestos to Annex III of the Convention. Canada's only allies in opposing the listing of chrysotile are other asbestos producing countries, several of which have highly questionable international reputations in the areas of human rights and public health. The states supporting Canada's position at the Convention are Indonesia, India, Iran, Kyrgyzstan, Peru, Russia, Ukraine, and Zimbabwe. By contrast, Canada's usual allies in international and economic relations, such as the European Union, the United States, Australia, New Zealand, Brazil, and
Argentina have all supported the addition of chrysotile to the Convention.

32 It has been argued that "Canada's generally positive global reputation [has allowed] it to promote this hazardous substance facing only a minimum of scepticism." Global patience however, may be running out. The Government of Canada has opposed the addition of chrysotile to Annex III at every meeting of the COP held by the Convention. In October 2006 at the 3rd COP, Canada opposed chrysotile's listing and claimed to join "with all other parties in deciding to defer consideration of the listing of chrysotile until the fourth Conference of the Parties in 2008."63

33 In explaining its stance, the Government has stated that while it opposed the listing, "it would not prevent consensus in support of a deferral of this agenda item to a subsequent Conference of the Parties."64 Such a consensus was reached, and the issue of chrysotile's listing was deferred to the 4th COP, recently held in October 2008. However, even before the 4th COP convened, Canada's Minister of Natural Resources, Christian Paradis, spoke at a 2006 Chrysotile Institute sponsored conference in Montreal and reiterated the Government's policy. His statement was clear and direct as he "explained that Canada would continue to resist the listing of chrysotile as a hazardous substance under the Rotterdam Convention."65

34 Thus, it was no surprise that when the chrysotile issue was considered at the most recent COP, Canada formed part of the resistance against the listing. This time however, the Government of Canada refused to publicly indicate Canada's position. Pat Martin, MP for Winnipeg Centre and former asbestos miner, contends that this silence is an indication that the Government knows its position is unpopular on both the domestic and international stages.66 Consequent to these blocking efforts, the COP was unable to reach a consensus on the listing, and once again deferred consideration to the next COP to take place in 2011.67

35 The tone of the preamble to the resolution declaring this deadlock at the 4th COP shows some signs that global patience is running out on this issue. The COP stated:

Noting with appreciation the work of the Chemical Review Committee in its consideration of chrysotile asbestos, in particular the technical quality and comprehensiveness of the draft decision guidance document...

Taking into account that the Conference of the Parties is not yet able to reach consensus on whether to list chrysotile asbestos,

Aware that the failure to reach consensus so far has created concerns in many Parties.68

36 The deadlock itself is a major source of frustration for the Parties to the Convention, but so too are the rationales used by Canada and its allies in opposing the listing of chrysotile asbestos.69
Canada, along with the asbestos industry itself, claims that chrysotile is a weak carcinogen, and contends that "its export trade need not be dangerous, if the importing countries practise safe use".

With respect to the first contention that chrysotile is a weak carcinogen, there is an "overwhelming scientific consensus to the contrary. Major health organizations such as the International Agency for Research on Cancer (IARC), the Collegium Ramazzini, and the World Health Organization (WHO) classify all forms of asbestos, including chrysotile, as human carcinogens." A human carcinogen is defined simply as any agent or substance that causes cancer in humans. Moreover, in March 2009, a group of 27 scientists from eight countries gathered at the IARC to reassess the carcinogenicity of a large number of materials that are classified as carcinogenic to humans. In their final report, the group concluded that:

Epidemiological evidence has increasingly shown an association of all forms of asbestos (chrysotile, crocidolite, amosite, tremolite, actinolite, and anthophyllite) with an increased risk of lung cancer and mesothelioma. Although the potency differences with respect to lung cancer or mesothelioma for fibres of various types and dimensions are debated, the fundamental conclusion is that all forms of asbestos are "carcinogenic to humans" ... Sufficient evidence is now available to show that asbestos also causes cancer of the larynx and of the ovary.

There is also evidence that the Government of Canada has been shielding the results of a study on chrysotile asbestos commissioned by Health Canada. In 2007, Health Canada asked an international committee of scientific experts to assess the risks of chrysotile asbestos to human health. According to a 2008 editorial in the Canadian Medical Association Journal, the report had already been completed, but had been kept secret for more than six months at the time. The editorial claimed to have information that its release was being blocked by the Prime Minister's Office. This type of underhanded protection of the results may be a signal that the report will undermine the Government's position on the health effects of chrysotile. This however, remains to be seen as the report has yet to be released.

With respect to Canada's second contention, that chrysotile can be used safely if a controlled use policy is followed, there is a similar consensus emerging that this approach is unfeasible in many developing countries, especially where there is no will to implement such an approach. The concept of controlled use, and its merits and drawbacks, will be developed in the next part of this paper.

Overall, Canada's policy towards the listing of chrysotile asbestos in Annex III to the Convention is quite clear: the Government will resist. On the other hand, the rationale behind this policy seems somewhat unclear, if not unfounded. The Canadian asbestos industry has shrunk dramatically in the past several decades, now having less than 900 workers nationally. There is no evidence that this trend will improve, as fewer and fewer states are willing to use chrysotile asbestos within their borders. Therefore, any contention that this policy is beneficial to the Canadian economy is somewhat limited. Having the entire Canadian asbestos industry shut down would not
be a significant hit to the Canadian economy, and the job loss would be no more than the kinds of initial shocks experienced by some industries when their country liberalizes trade in a specific sector. Moreover, the job loss that might be experienced by the collapse of the Canadian chrysotile industry would represent a miniscule fraction of the recession driven job losses experienced in Canada over the past year. In the month of November 2008 alone, Canada lost 70,600 jobs. The total number of positions in the chrysotile industry represents just over 1% of that number. Therefore, job losses on the scale of what might be experienced by the chrysotile industry are dwarfed by the overall employment cuts caused by fluctuations in the market and economy. Industries, whether large or small, are constantly contending with this ebb and flow of the economy. Layoffs and closures on the scale of the asbestos industry are relatively common, even in small community supporting industries, such as steel and lumber.

41 Next, there is a broad scientific consensus emerging about the harmful effects of chrysotile on human health, and the only parties that do not agree are asbestos producing countries and the industry itself. Combined with the apparent impracticality of the controlled use approach, which will be discussed next, Canada's policy of resisting the addition of chrysotile to the Convention seems somewhat unfounded, and likely based entirely on domestic political considerations and vote seeking behaviour.

42 The chrysotile issue has come before the Parliament of Canada on several occasions. In November 2004, Marc Boulianne, the BQ member for Megantic-L'Erable, a riding supported by the asbestos industry, stood before the house and asserted that his party had always supported chrysotile and the controlled use approach. In addition, the member indicated that his party had effectively convinced the Government of Canada not to support the listing of chrysotile at the COP. In that same debate, Jacques Saada, the Minister of the Economic Development Agency of Canada for the Regions of Quebec, stated that including the listing "would have created problems even bigger than those the [asbestos producing] region is facing today." He also affirmed that the Government made the decision to protect the region.

43 On the other hand, one elected official who is concerned about the chrysotile-Convention issue is, again, New Democratic Party MP Pat Martin. Mr. Martin routinely brings petitions signed by citizens before the House of Commons asking the Government both to implement a complete ban on asbestos in Canada and to stop blocking international efforts to list the product in the Convention. Most recently, a petition was brought before the House on February 10, 2009.

44 Martin has also argued the case for the international Convention in the context of debating domestic bills and amendments. An example of such was when the House was debating an amendment to the Hazardous Materials Information Review Act with respect to the Government's Workplace Hazardous Materials Information System (WHMIS). During his statement, Martin indicated that Canada should require the same level of occupational health and safety regulation of chrysotile abroad as the country does domestically by allowing the listing in the Convention. He also stated that the Government should "extend that same interest in the rights of workers to know
[about] hazardous products to our international activities because what WHMIS is to the Canadian workforce, the Rotterdam Convention is to the international workforce. In response to these statements, Christian Ouellet, the BQ MP from another asbestos producing region in Quebec, Brome-Missisquoi, told the House that by comparison to other forms of asbestos, chrysotile "is not as dangerous and does not even come close to posing the same risks."

Most recently, Martin brought forth the issue during question period in Parliament on June 11, 2009. Martin asked the Government of Canada "[h]ow, in all good conscience, can the Minister of Natural Resources continue to promote and subsidize this deadly industry?" In response, Christian Paradis, Minister of Public Works and Government Services, stated that the Government's "policy is clear and remains unchanged. The safe use of chrysotile fibre is being promoted, here in Canada and everywhere else in the world." In response to a follow-up question, Paradis noted "promotion in Canada and internationally of the safe use of asbestos is being carried out on behalf of the government of Quebec and the federal government, as well as the workers in the industry. This is a policy they have developed, and they are the experts."

What these parliamentary debates demonstrate is that the party in Government in Canada rarely gets involved in the debates over chrysotile asbestos in the House of Commons. Most of the substantive debates in the House on chrysotile have been initiated by, and consisted of, comments from members of the smaller parties in opposition to the Government: the Bloc Quebecois and the New Democratic Party. There are, however, a few scarce examples of Government interest in this topic. Gary Nash, a former Assistant Deputy Minister of Minerals and Metals Sector in the Department of Natural Resources, and the founder of the Chrysotile Institute, is one example of a Government official who has been vocal on the chrysotile issue. His position is: the fact that chrysotile is a carcinogen doesn't matter; what matters is the risk, and it has been proven by scientific evidence that chrysotile can be used in manner with little or no risk. While this gives us some insight into the Government policy, the best indication of what the Government's actual rationale is (or was) is a consultation document produced by Environment Canada in 2004. This document included the results and conclusions of a broad consultation with the public on the issue of the listing of chrysotile asbestos in the Convention.

The consultation document explored the implications of listing chrysotile under the Convention and concluded that "[t]he addition of the substance to the Convention may serve as an awareness-raising process by providing information on the actions taken by other countries to manage the risk associated with chrysotile. It may avoid misuses and health incidents. Informed consent is consistent with Canada's controlled use approach." These conclusions are quite interesting as they seem to be inconsistent with the Government's position to block chrysotile's addition to the Convention. There were however, other conclusions in the document that display some concern over the potential listing. The document also states that while the PIC procedure under the Convention does not include a recommendation to ban a product, it "may result in some countries misunderstanding the purpose of the Convention and taking action to ban or severely restrict the substance even if domestic use of the substance is well controlled." This concern is
generally speculative and relies on a series of unstable assumptions. The general goal of this Convention is the dissemination of information and knowledge, which suggests that the purpose of the Convention is likely expressed to the Parties when that information is distributed. Moreover, this is a concern that Canada could alleviate by educating its trade partners about the Convention.

48 The consultation document also expresses the concerns that the listing will promote alternatives to chrysotile that have not been proven safer than the Canadian product, and that it will impose a further administrative burden on Canadian producers; although it concedes that this is a relatively small burden on the industry. 93

49 Overall, this type of behaviour -- shielding documents, relying on unfounded concerns, and promoting discredited science on the global stage -- does not enhance Canada's international reputation. In fact, one commentator has stated that "Canada is eroding its credibility as an ethical society by promoting asbestos while ignoring or harming the health of people in other countries." 94

c. Controlled Use of Chrysotile Asbestos

50 The Government of Canada has promoted the controlled use approach to chrysotile asbestos since 1979. 95 As stated by Minister of Foreign Affairs Maxime Bernier in April 2008, controlled use means "that, through enforcement of appropriate regulations to rigorously control exposure at low levels, the risks associated with occupational exposure to chrysotile in mining, milling, product manufacturing, transportation and handling may be no greater than the risk present in other occupational situations." 96 In response to a question asked on what Canada does to ensure that this approach is followed, the Government stated "[w]hile implementation of domestic measures to ensure workplace health and safety is a sovereign responsibility of importing countries, Canada makes efforts to promote the controlled use of chrysotile." 97 In addition, the Government maintains that over 93% of the chrysotile exported from Canada is used in cement products, and that they are not aware of its use in developing countries for purposes that are banned in Canada. 98

51 An important reason that Canada and its supporters back this approach is the 1986 Convention (No. 162) concerning safety in the use of asbestos, 99 passed by the International Labour Organization (ILO). This Convention suggested that chrysotile could be used safely if a controlled use approach was followed. Several BQ MPs have referred to the ILO and this Convention when addressing the House of Commons on the chrysotile issue. In 2004, Marc Boulianne invoked the name of this Convention, as well as the Government of Quebec and his party when naming bodies which had officially recognized the controlled use approach. 100

52 In another instance, BQ MP André Bellavance noted that 137 countries had gathered in the ILO to unanimously pass the Asbestos Convention, which recommended that chrysotile could be used safely. 101 The problem with using this rationale was that prior to this statement, in November 2006, the ILO had passed the Resolution Concerning Asbestos, 102 which stated that the Asbestos Convention "should not be used to provide a justification for, or endorsement of, the continued use of asbestos" 103 and took a new position to "promote the elimination of future use of all forms of
asbestos”. This meant that one of the only international organizations to support the controlled use approach of chrysotile was now on the other side of the fence. It remains to be seen if Government officials and regionally interested politicians will continue to use this rationale. Whether or not they have any support for the concept of controlled use, the Government will likely continue to promote it and suggest that they are attempting to implement it.

53 The way the Government of Canada "monitors" the controlled use approach is through a good faith agreement with the asbestos industry. The Canadian chrysotile industry "has agreed not to export to companies that do not use chrysotile in a manner that is consistent with... [the] controlled-use approach." However, the Government is not aware of any instance where a Canadian exporter has refused to sell chrysotile to a company on this basis. Furthermore, the Government knows that the Canadian asbestos industry will not act as inspectors to enforce this approach.

54 In reality, Canadian asbestos producers have been exporting to many countries with, what some commentators have described as, "highly questionable human rights and public records." Many of these states are uneducated about the risks of chrysotile, and would likely prefer to remain so. Barry Castleman sums up this point clearly, writing "[g]iven the historic lack of both industry product stewardship and controlled asbestos exposures, especially in the vulnerable developing countries, the operative question is: Will asbestos hazards be controlled? (not: Can asbestos hazards be controlled)."

55 This pessimism about the controlled use approach is not unfounded. Over the past several decades, countless instances of chrysotile's uncontrolled use have been uncovered in developing countries, and Castleman contends that uncontrolled use of chrysotile has endured as the status quo in the developing world. This sentiment has been echoed by the World Health Organization, which believes "that in practice it is impossible to prevent carcinogenic dust being released when chrysotile asbestos is handled".

56 A significant example of such uncontrolled use was recently uncovered in India, one of the top destinations for Canadian asbestos. A recent estimate published in India suggested that approximately 100,000 workers are exposed to asbestos. Moreover, in 2005, a study of a segment of those workers exposed to asbestos showed that 22% suffered from asbestosis. Dr. T.K. Jossi, a prominent Indian public-health scientist, has refuted Canada's contention that chrysotile can be used in a controlled manner in India. This position was also supported by a recent report on asbestos use in Southeast Asia entitled Killing the Future: Asbestos in Asia, which contended that the continuing use of asbestos is a crime against humanity. Additionally, serious concerns have been brought forth by the non-governmental organization (NGO), Ban Asbestos Network of India (BANI). BANI has recently called on the Indian Government to recognize the high levels of asbestos exposure experienced by their populous, and to take immediate steps to protect workers, consumers and citizens at large. In a press release, the NGO stated: "[j]ust how handicapped our environmental regulatory bodies are is best illustrated by the manner in which asbestos is allowed to
be used in the country".118

57 While India clearly has difficulty controlling the use of chrysotile, perhaps the most significant example of the failure of the controlled use approach is right here in Canada. The failure in Canada has come from both the use of asbestos and the more recent attempts at asbestos removal. Canada claimed to have "the most effective technology for dealing with asbestos,"119 but when asbestos removal projects got underway across the country, there were significant problems controlling the dust. As a result of improper removal and handling, many Canadian companies were fined under occupational health and safety legislation.120 While Canada's efforts at controlled use are much more successful than anything possible in the developing world, its "occupational health record now looks no better than other industrialized countries."121 Additionally, the failure to provide safe working conditions in Canada has had continuing consequences with respect to asbestos related diseases that are still being felt today.122

58 The controlled use approach to chrysotile asbestos is highly questionable in its merits, and practically speaking, unlikely to be followed in many developing nations. As time passes, the legitimacy of this approach is consistently being whittled down. Perhaps the biggest blow to the concept was a 2000 decision of a WTO Dispute Panel, which held in favour of the European Economic Communities (EEC) to uphold a ban on chrysotile asbestos imposed by France and challenged by Canada.123 In its decision, the panel agreed with the EEC that "controlled use is neither effective nor reasonably available ... [and] [a]ccordingly, controlled use does not constitute a reasonable alternative to the banning of chrysotile asbestos".124 This decision will be discussed in more detail below.

II. Canada Against the World

59 The Government of Canada's policy stance on chrysotile in general, as well as its listing in the Convention, is at odds with most of the world. Chrysotile has been on the Convention's agenda since its creation in the late 1990s. The only difference between chrysotile and other products listed in Annex III is chrysotile's extensive production and use in many countries.125

60 There are three primary reasons for the continued efforts to list chrysotile in the Convention. First, chrysotile satisfies all the criteria to be listed in Annex III.126 After the Convention Secretariat received two notifications of final regulatory action from different PIC regions, the CRC began its review of chrysotile.127 In the CRC’s opinion, chrysotile is undeniably a human carcinogen, and it was recommended that the substance be listed in Annex III to the Convention.128 Many Convention Parties have expressed deep concerns with the failure to reach a consensus on chrysotile. The main concern is the dangerous precedent of failing to list a substance that satisfies all the criteria for listing; a precedent which could undermine the effectiveness of the Convention.129 Reiner Ardnt, Chairman of the CRC when it considered chrysotile, also expressed regret for the recent failure to reach a consensus, stating "the treaty is primarily designed to protect developing countries by giving them a simple way to ban imports of products that they fear would be hazardous."130 Similar
concerns were expressed by the President of the COP at the 3rd Conference, who also invoked the ultimate goals and objectives of the Convention. The President reminded the COP "that the effect of listing was merely to trigger information exchange on the substance and not to ban it or even to restrict its use."  

61 The second basis for supporting the addition of chrysotile to the Convention is that the current conditions of its use in developing nations are reminiscent of those that existed in the developed world before its severe health risks became known. It is also a concern that use is still strong and continuing to increase in many countries, including India, Indonesia, Thailand, Zimbabwe, Algeria, and Colombia; all of which, excluding Zimbabwe, import Canadian asbestos.

62 The third reason is that safer alternatives to chrysotile asbestos do exist. Many countries now use a variety of alternatives in lieu of asbestos, such as wood pulp, sisal, and polyvinyl alcohol fibres. These products are used to make fibre-cement panels and roofing, which is the primary use of asbestos in the developing world. Some Convention members argue that adding chrysotile to the Convention will promote the search for safe substitutes to chrysotile. While it is true that not all of these alternatives have been tested adequately to assess their potential health risks, protecting the asbestos industry is no reason to prevent this research.

63 Canada has also been at odds with the world on chrysotile in venues other than the Convention. Canada has made two major legal challenges to bans of chrysotile asbestos since the mid 1980s. One, a challenge in the American courts to a ban proposed by the United States Environmental Protection Agency (EPA) in the late 1980s. The other, a challenge in the WTO dispute resolution body to a ban proposed by France in the late 1990s.

64 The differing outcomes in these two challenges demonstrate the growing opposition to Canada's position; such opposition is no longer based only on scientific and moral grounds, it also has a basis on international economic legal grounds.

65 In 1986, the United States EPA proposed to ban all asbestos products, including chrysotile imported from Canada. At this time, the Government of Canada, representing public and private asbestos interests, lobbied the Americans to reconsider the ban. The Canadian pressure proved to be futile and the ban was implemented in 1989. Unable to lobby the ban away, Canada instead launched a lawsuit against the EPA's ban of chrysotile. After the hearings, a United States 5th Circuit Court of Appeals panel overturned the ban on the basis that there was not sufficient evidence to show that chrysotile posed a significant health risk, and on other administrative law grounds.

66 The apparent success of this challenge, however, was not relived when Canada sought to oppose a French ban on asbestos in front of the WTO in 1999. The ban at issue was a ban imposed by the French government on the manufacture, import, domestic marketing, exportation, possession for sale, and transfer under any title whatsoever of all varieties of asbestos fibres. However, on an exceptional and temporary basis, the ban would not apply to certain materials, products, or devices
containing chrysotile fibre, when no substitute for that fibre was available that posed a lesser health risk than chrysotile (based on current scientific knowledge). Canada argued that the ban violated the national treatment provision in Article III of GATT, and the EEC defended the ban on behalf of France, on the basis of the exception clause in Article XX(b) of GATT. Article XX(b) of GATT is an exception clause that allows trade restrictive measures that are necessary to protect human life or health.

67 Canada appeared to be in an excellent position to successfully overturn the ban. It had the victory against the EPA under its belt, and experience showed that WTO dispute panels tended to favour economic interests over health and environmental concerns. This is evident by the fact that in the late 1990s "nearly one out of every four cases brought to [the WTO] system of dispute resolution ... had to do with environmental, health, or safety issues. Yet each time the ruling panels [had] decided in favour of business interests." In fact, the Chrysotile Institute was promoting this economic tilt as serving the mandate of the WTO. In a press release on the subject, the Institute stated that "[o]ne of the fundamental purposes of the WTO is precisely to discipline the resort to politically popular trade restrictive measures adopted in response to protectionism and other popular causes, such as environmental, health or safety concerns."

68 In front of the WTO panel, Canada argued, inter alia, that the ban violated Article III of the GATT because the EEC was banning a substance that was "like" polyvinyl alcohol, cellulose, and glass fibres, all of which were manufactured in the EEC. As a result, Canada argued this ban favoured the national polyvinyl alcohol, cellulose, and glass fibre industries at the expense of Canadian asbestos producers.

69 Since the EEC based its argument on the Article XX(b) exception clause of the GATT, which allowed a trade restrictive measure necessary in order to protect human life or health, the substance of the WTO hearings was largely aimed at the scientific merits of the European claim. After considerable debate over what experts should sit on the independent scientific panel that would provide advice to the dispute panel, each side submitted briefs summarizing their positions on the scientific and medical aspects of chrysotile. The Canadian report was received in April 1999, and almost immediately was lambasted by leading scientific and medical authorities. Some called it substantially and factually inaccurate, while others maintained that the brief was misleading, selective and wildly untruthful. Julian Peto, Professor and U.K. Cancer Research Chair of Epidemiology at the London School of Hygiene and Tropical Medicine and the Institute of Cancer Research, contended that the brief was "a biased political document rather than a serious scientific review." Conversely, the European brief defending the French ban received no such criticism. In addition to leading scientific and medical support, the European position was also backed by the United States.

70 Thus, despite the WTO's general bias towards the party bringing the trade challenge, the panel held that the public health justification for the ban on asbestos was legitimate, and the ban was upheld. The panel also made several conclusions on the health risks and potential for controlled
and safe use of chrysotile asbestos. First, the panel held that there was no level at which chrysotile exposure was safe. The panel relied on the conclusions of the group of experts it had commissioned, which held that all types of asbestos are carcinogens. Second, they held that controlled use, "as defined by Canada was unrealistic and was not known to have occurred anywhere in the world". Moreover, they stated that controlled use was not a reasonable alternative to a ban. On this point, the panel stated that an example of controlled use remained to be demonstrated, and was especially unlikely to occur in the building industry and for "do it yourself" enthusiasts, which are the two most important users of chrysotile cement products. Third, the panel considered whether the ban fell within the words of Article XX(b), and specifically considered the term "necessary" in the clause "necessary to protect human ... life or health." The Panel found that the level of risk, combined with France's overall objective meant that "controlled use based on international standards would not seem to make it possible to achieve the level of protection sought by France." Lastly, the panel held that safer alternatives to chrysotile existed and were readily available for use.

Canada appealed the panel's decision, however, the decision was upheld by the WTO Appellate body in March 2001. The Appellate Body held that in the circumstances the Panel remained well within its discretion, and had "more than sufficient basis to conclude that chrysotile-cement products do pose a significant risk to human life or health."

This decision and the subsequent appeal dismissal have had several significant effects on the chrysotile debate. Some argue that the decision is a relatively weak precedent from the environmental and health perspective because chrysotile was clearly a carcinogen, and recognized as so by leading health and scientific authorities. Since this was the first time that a dispute panel had decided to uphold a trade restrictive measure using the Article XX(b) exception in the GATT, commentators argued that the scientific bar was set extremely high for use of this provision.

Viewing this decision from the perspective of chrysotile and its listing in the Convention however, it seems to be a significant step forward. First and foremost, this decision further entrenches the consensus on the dangers of chrysotile and the impracticality of controlled use. Second, it sets a precedent for bans on chrysotile asbestos around the world. Canada should now recognize that whether or not chrysotile is listed in the Convention, it can be banned legitimately within the WTO framework. Prior to this decision, there may have been a legitimate argument that excluding chrysotile from the Convention would prevent bans on its use. Now however, opposing the listing makes it seem as though Canada's goal is to prevent the spread of legitimate health and safety information for this product.

I. Potential Effects of the Rotterdam Convention on Canada's Exports

In the wake of the WTO dispute panel decision, it seems unlikely that listing chrysotile in Annex III to the Convention would have any real adverse effects on Canada's chrysotile exports. The only possible effect would be that a Party to the Convention becomes aware of the adverse
health effects of chrysotile, and as a result chooses to ban its import. As the WTO decision demonstrates, however, this is already a legitimate option, whether chrysotile is listed in the Convention or not. Bernard Coulombe, President of Jeffrey Mine Inc. (which is one of the two remaining chrysotile mines in Quebec), argues that the listing is only "the first step towards an outright ban" with the goal of replacing chrysotile with alternatives produced in other countries. This, however, is unlikely to happen in countries that use chrysotile extensively. We can see the potential reaction to listing chrysotile by looking at the effect of listing some other dangerous products under the Convention.

75 All types of asbestos apart from chrysotile are listed under the Convention and are considered to be severely carcinogenic. Looking at how Canada's top five export destinations for chrysotile have reacted to these listings, it can be seen that being listed in the Convention hasn't necessarily changed that much. Peru has consented to the import of these highly dangerous forms of asbestos; India has consented subject to a condition, which is obtaining an import licence from the Indian Government; Pakistan and the United Arab Emirates have issued no response to the listings; and Mexico has consented under conditions, although they also state that these forms of asbestos are not used in Mexico.

76 These reactions to the listing of the highly carcinogenic forms of asbestos suggest that chrysotile's listing might not change the policies of countries that continue to find its use cost-effective, despite the health effects. From 2003 to 2005, India accounted for over 95% of Canada's crude asbestos exports. Judging from their response to the listing of other types of asbestos, there is no real basis to worry that India will suddenly decide to ban chrysotile if it becomes listed in the Convention. Chrysotile is still widely used in India; in fact, a new asbestos-cement products plant opened in India in 2004. This conclusion is also supported by India's official policy with regard to chrysotile and the Convention. India was one of the few countries that joined with Canada in blocking the listing at the last COP, and it based its decision on the grounds that they "do not have enough evidence ... to conclusively prove that chrysotile asbestos causes cancer or diseases among workers in India".

77 The inherent nature of the Convention further supports the above conclusions: the Convention is not aimed at restricting trade, but rather the dissemination of information. In addition, the procedure set out in the Convention has been criticized for failing to go far enough. Paula Barrios has written a substantial paper on the Convention which contends "that the treaty is fundamentally flawed and cannot adequately respond to the problems and challenges it is intended to address", while others have called it "a regime of politeness." These two observations underline the argument that chrysotile's addition to the Convention may not be the end of the industry, as Canada and the asbestos industry seem to paint it. The issue of whether the Convention has gone far enough is outside the scope of this paper, but perhaps the Government of Canada should take these arguments into account when evaluating its stance for the next COP in 2011.

Conclusion
Canada's policy on chrysotile asbestos, both generally and with respect to the Convention, has been greatly discredited by leading scientific and medical authorities, much of the international community, and the WTO. The Government's continued opposition to chrysotile's listing in the Convention has little or no legitimate rationale outside of self-serving and short sighted political considerations. This position is becoming increasingly unreasonable to the international community. As Canada continues to promote this position, the global community is becoming impatient and the country's international reputation is beginning to suffer. Furthermore, focusing on the real objectives of the Convention, there may not even be a legitimate basis to fear the listing of chrysotile. As international economic law stands, countries are free to ban chrysotile whether it is listed in the Convention or not. The real result of listing chrysotile would be to spread information to all Parties, and allow them to make sovereign choices on matters of public health. Exporting chrysotile with its known adverse health effects may be morally reprehensible on its own, but blocking an international agreement that would allow less developed states to receive health and safety information for those products takes it even one step further. There is a strong need for a re-evaluation of Canada's policy with regard to listing chrysotile asbestos in the Convention. The Government should re-assess why it is blocking this listing, and then decide if there is any legitimate or rational basis behind their resistance. As this paper has attempted to demonstrate, the Government will likely find that this basis is lacking.

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Notes

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1 See Katherine M.A. O'Reilly et al., "Asbestos-Related Lung Disease" (2007) 75 American Family Physician 683. The authors also state (at 683): "The prevalence of asbestosis in the United States is not known, but in 2000, there were an estimated 20,000 hospital discharges with this diagnosis and 2,000 deaths with asbestosis as the underlying or contributing cause, and these numbers are expected to rise through this decade. The incidence of malignant mesothelioma in the United States was thought to peak at 2,000 cases per year from 2000 to 2004; another study suggested there would be a yearly average of 3,200 deaths from asbestos-related lung cancer from 1985 to 2009."


7 McCulloch & Tweedale, supra note 6 at 271. See also: UNEP, supra note 5.


9 UN EPOR, Decision 15/30 (1989) [London Guidelines].


12 See McCulloch & Tweedale, supra note 6 at 271.

13 Convention, supra note 3, art. 1.

14 Supra note 6 at 271.

15 Convention, supra note 3, art. 3.

16 Ibid.

17 Ibid., art. 2(a).

18 Ibid., art. 2(b).
19 Ibid., art. 2(c).

20 To date, 7 Parties to the Convention have notified the Secretariat of a final regulatory action on chrysotile asbestos: it has been banned in the European Union, Switzerland, Latvia, and Japan and it has been severely restricted in Australia, Bulgaria, and Chile. See UNEP, "Notifications of Final Regulatory Actions by chemical name", online: Rotterdam Convention -- Share Responsibility <www.pic.int/Reports/FRA-Parties-BYChem-List.asp>.

21 Convention, supra note 3, art. 2(e).

22 Ibid., art. 19.

23 Ibid., art. 18.


25 Convention, supra note 3, art. 5.

26 Convention, supra note 3, art. 5(6).

27 Ibid., art. 7.

28 Ibid., art. 7(2).

29 Ibid., art. 10(2).

30 Ibid., art. 10(4).

31 Ibid.

32 Ibid., art. 10(9).


34 Convention, supra note 3, art. 12(1). A list of required information for the export notice is found in Annex V to the Convention.

35 A list of required information for a notification of final regulatory action made pursuant to Article 5 is found in Annex I to the Convention.

36 See Barrios, supra note 11 at 684, n. 17.


39 Canada is currently the world's fifth largest chrysotile asbestos producer.


41 See McCulloch & Tweedale, supra note 6 at 271.

42 See "Curb Canada's Asbestos Trade," supra note 38.


44 Ibid. at 237.


47 Ibid.

48 See Brophy, Keith & Schieman, supra note 43 at 237.

49 Castleman, supra note 37 at 799.


51 See Castleman, supra note 37 at 809.

52 Supra note 6 at 270.
53 Castleman, supra note 37 at 805.

54 McCulloch & Tweedale, supra note 6 at 152.

55 See Castleman, supra note 37 at 800.


58 Ibid.

59 Brophy, Keith & Schieman, supra note 43 at 237.

60 See Stanbrook et al, supra note 46 at 871.

61 See Canada's policies, supra note 50.

62 Brophy, Keith & Schieman, supra note 43 at 237.

63 Canada's policies, supra note 50.

64 Ibid.

65 McCulloch & Tweedale, supra note 6 at 271.


68 "Inclusion of the chemical" ibid. at 2.

69 See "Pesticide tributyltin added to trade 'watch list'" NewsPress (4 November 2008) (WLNR) [translated].

70 See Brophy, Keith & Schieman, supra note 43 at 236.
71 Stanbrook et al., supra note 46 at 871.

72 Brophy, Keith & Schieman, supra note 43 at 235.

73 See Webster's New World Medical Dictionary (2003) s.v. "carcinogen".

74 Kurt Straif et al., supra note 2 at 454.

75 See Stanbrook et al., supra note 46 at 872.


77 Ibid.

78 See Brophy, Keith & Schieman, supra note 43 at 235; Webster's New World Medical Dictionary, supra note 73; Kurt Straif et al., supra note 2 at 454.


80 Ibid. at 1630 (Hon. Jacques Saada).

81 Ibid.


85 Ibid. at 1705 (Pat Martin).
86 Ibid. at 1725 (Christian Ouellet).


88 Ibid. at 1455 (Christian Paradis).

89 Ibid. [emphasis added].


92 Ibid.

93 Ibid.

94 Brophy, Keith & Schieman, supra note 43 at 241.


96 Ibid.

97 Canada's policies, supra note 50.

98 Ibid.


100 House of Commons, Edited Hansard, No. 008 (14 October 2004) at 1410 (Marc


103 Ibid.

104 Ibid. [emphasis added].

105 Canada's use and export, supra note 95.

106 Ibid.

107 See Consultation Document, supra note 91 at 10.

108 Sentes, supra note 56 at 41.

109 Among Canada's top export destinations for chrysotile are: Sri Lanka, Indonesia, Colombia, and El Salvador. See: Canada asbestos update, online: Building and Wood Workers' International <www.bwint.org/pdfs/canadaasbestosupdate.pdf>.

110 Supra note 37 at 797.

111 Ibid. at 796.


113 See Mittelstaedt, "Asbestos Shame," supra note 40 at 2.


116 See also Sass, supra note 115.

118 Ibid.
119 Sentes, supra note 56 at 45.
120 Ibid.
121 McCulloch & Tweedale, supra note 6 at 152.
122 Ibid.
123 Measures Affecting Asbestos, supra note 4.
125 See McCulloch & Tweedale, supra note 6 at 271.
126 Ibid.
127 See supra note 20.
130 Naomi Koppel, "Asbestos producers block plan to allow ban on imports" Associated Press (18 November 2003)
131 Ibid.
132 See Castleman, supra note 37 at 794.
133 Ibid. at 795.
134 See Chemical Review Committee, supra note 129 at 2.
135 Corrosion Proof Fittings, supra note 4.
136 Measures Affecting Asbestos, supra note 4.

137 See Castleman, supra note 37 at 798.


139 Corrosion Proof Fittings, supra note 4.

140 See Measures Affecting Asbestos, supra note 4 at 3.

141 GATT, supra note 33, art. III.


143 GATT, supra note 33, art. XX(b).

144 Sentes, supra note 56 at 1.

145 Ibid. at 56-57.

146 See Trebilcock & Giri, supra note 142.

147 See Kazan-Allen, supra note 124 at 486.

148 Ibid.

149 Ibid.

150 See Castleman, supra note 37 at 802.

151 Ibid.

152 See Sentes, supra note 56 at 47.

153 Castleman, supra note 37 at 802.

154 See Kazan-Allen, supra note 124 at 489

155 Measures Affecting Asbestos, supra note 4 at paras. 8.209-8.214.
156 GATT, supra note 33, art. XX(b).


158 See Castleman, supra note 37 at 802.


160 Ibid. at para. 166.

161 See McCulloch & Tweedale, supra note 6 at 248.

162 See Kazan-Allen, supra note 124 at 489.


164 There are 5 types of asbestos: chrysotile, actinolite, amosite, anthophyllite, and crocidolite.


166 See Canada's policies, supra note 50.

167 See Castleman, supra note 37 at 804.


169 Supra note 11 at 682.

170 Stanbrook et al., supra note 46 at 871.

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