

NEWSLETTER

Newsletter from the Chrysotile Institute

For safe and responsible
use of chrysotile

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LETTER TO THE EDITOR OF A CANADIAN NEWSPAPER CONCERNING ASBESTOS

Too often in the medias, the information on "asbestos" is incomplete, selective and misleading. An Editorial published in a Canadian newspaper "Whatever you call it, asbestos is deadly" on September 28, 2009 is a clear demonstration of inaccurate, incomplete information.

The Editorial states that some *90,000 people die each year from asbestos-related lung cancer, mesothelioma and asbestosis, according to the World Health Organization*. Unfortunately, few people would bother to scrutinize the validity and completeness of such numbers. But a careful examination of the Concha-Barrientos et al (2004)¹ report published by the WHO, shows that the above statement is grossly misleading, in that it represents only selected parts of the report, which obviously suits the agenda of some ideologues. Here are the facts and the complete conclusions of the Concha-Barrientos report.

First, the Concha-Barrientos et al report acknowledges that there is a difference in risk between chrysotile and the amphibole varieties of asbestos. In chapter 21, p.1687, the authors state:

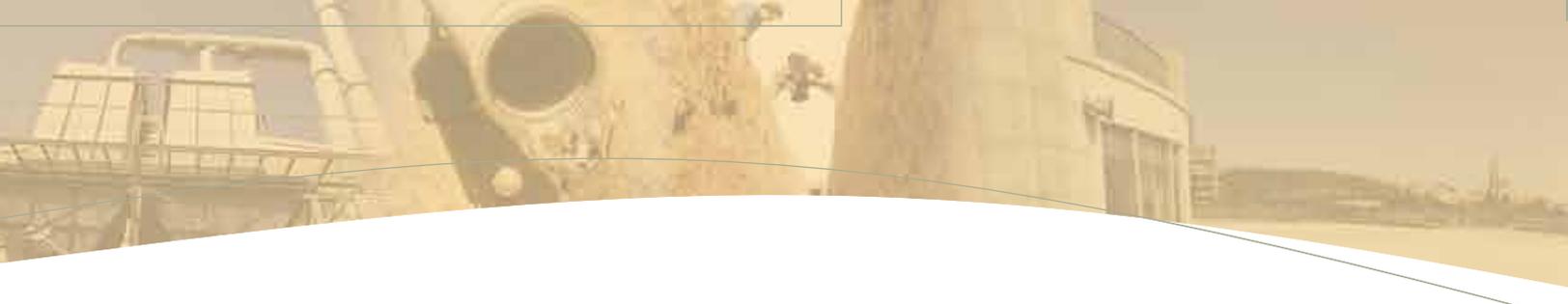
"Currently, about 125 million people in the world are exposed to asbestos at the workplace. According to global estimates at least 90,000 people die each year from asbestos-related lung cancer." But the authors also add: "In 20 studies of over 100,000 asbestos workers, the standardized mortality rate ranged from 1.04 for chrysotile workers to 4.97 for amosite workers, with a combined relative risk of 2.00. It is difficult to determine the exposures involved because few of

the studies reported measurements, and because it is a problem to convert historical asbestos measurements in millions of dust particles per cubic foot to gravimetric units. Nevertheless, little excess lung cancer is expected from low exposure levels."

Second, the Concha-Barrientos report echoes the benchmark publication by Hodgson and Darnton (2000)² in which the specific risk of cancer death is addressed. These authors calculated the risks for mesothelioma on the assumption that exposure commenced some time between the ages of 20 and 45 years and ceased at age 65 years. Assuming a **mixed fibre type**, the lifetime risk of cancer death is approximately 100/100,000 fibre.year per ml. This combined estimate is based on best estimates of risk for different cumulative exposures categories. For cumulative exposures of between 10 and 100 f/ml.years, the risks are: **400 deaths per 100,000 exposed for each f/ml.year of cumulative exposure for crocidolite, 65/100,000 for amosite and 2/100,000 for chrysotile.**

According to the publication by Hodgson and Darnton (2000)², **for cumulative exposures of 0.1 f/ml.years, the risks are respectively 100 deaths per 100,000 exposed for crocidolite; 15 deaths per 100,000 exposed for amosite and "probably insignificant" for chrysotile.**

The Editorial states that most developed countries have banned its use, including the European Union in 2005. While this may be the public misperception, it is important to note that chrysotile asbestos, different from the other amphiboles varieties (crocidolite and



LETTER TO THE EDITOR OF A CANADIAN NEWSPAPER CONCERNING ASBESTOS (CONTINUED)

amosite), is not banned in North America (USA, Mexico and Canada), nor is it banned in South America with the exception of two or three countries, nor in Russia or in the majority of Asian countries. In fact, there are more countries (two thirds of humanity) still using chrysotile than there are that have banned it.

Presently, world chrysotile production is about 2,2 million tons a year, the same quantities that were produced back in 1960. If there is such a production, it is because there is a demand. And if there is a demand, it is because there is an urgent need for affordable, durable and efficient materials to build the badly lacking infrastructures of developing countries.

¹Concha-Barrientos M, et al. (2004). "Comparative Quantification of Health Risks: Global and Regional Burden of Disease Attributable to Selected Major Risk Factors" in: Ezzati M, Lopez AD, Rodgers A, Murray CJL, eds. Geneva: World Health Organization, chapter 21, pp.1651-1801

²Hodgson J.T. and Darnton A. (2000). "The Quantitative Risks of Mesothelioma and Lung Cancer in Relation to Asbestos". Ann. Occup. Hyg. 44(8): 565-601



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WHEN WILL WE HAVE A REAL COMPARATIVE STUDY ?

For several years now, various organizations involved in health protection, including some international agencies, have been asking that new scientific evaluations be conducted on the inherent risks of using chrysotile, comparing it with other substitute fibres and products currently available on international markets. There is a need for a real comparative study of the actual risks involved in contemporary use of chrysotile and the potential risks of substitute fibres and products.

Directive 1999/77 of the European Commission, dated July 26, 1999, addressed this issue in mandating its *Scientific Committee on Toxicology, Ecotoxicology and the Environment (CSTEE)* to undertake a review of scientific data on the risks of chrysotile and its substitutes by January 1, 2003! No point mentioning that this was never done. On numerous occasions, Canada and other countries have raised the fact that replacement fibres and products have still not been scientifically and adequately evaluated in terms of their potential risk. Moreover, similar concerns have been voiced by international organizations like the *International Agency for Research on Cancer (IARC)* and the CSTEE.

Such a comparative risk analysis should cover a systematic review (meta-analysis) of epidemiological and toxicological studies in order to assess the impacts of chrysotile on health, compared with amphiboles and other fibres currently traded on international markets. Among other things, this assessment should look at contemporary methods and practices, in comparable exposure conditions and environments, in order to obtain more precise and credible data. This is a necessary update that should provide for an informed decision on chrysotile, including its possible replacement by other fibres or products, whose risks should also be scientifically documented.

Proponents of a global ban maintain that given that chrysotile does not carry great economic weight, although it is important, it would be better to simply stop producing it, as quickly as possible.

Faced with such a radical demand, and one for which there is little in the way of scientific documentation,

our position has been to continue promoting safe use, for all fibres and for all minerals and metals. This policy of safe use is consistent with the historic commitment of governments to the communities involved. The fact remains that it is still very important to promote health protection in the use of any potentially risky product, in both producing and consuming countries.

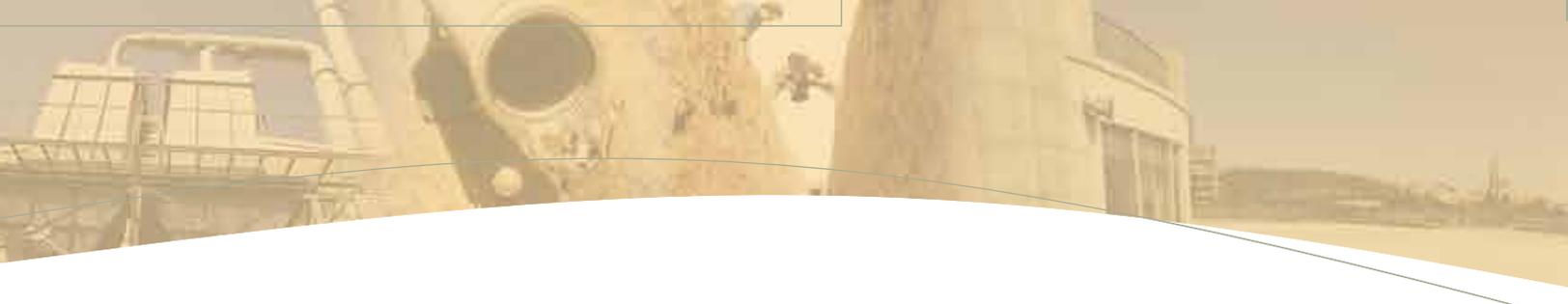
Therefore, before moving to the ban for which militant extremists continue to call loudly, we believe, like many international organizations, that governments should address the gap that exists in terms of evaluating the risks associated with the use of chrysotile on the one hand, and substitute fibres and products on the other. This must absolutely be through a scientific approach, and not in response to political pressure and alarmist perceptions.

We have to go further than the Health Canada panel...

A report on chrysotile was published in November 2007 by Health Canada, following consideration by a panel of experts whose mandate was to:

- assess the risks of cancer associated with current levels of exposure to chrysotile asbestos in Canada;
- provide advice on how the proportion of tremolite in commercial chrysotile influences the exposure-response relationship between chrysotile and risk;
- rank risk estimates by calculating their uncertainty using a credibility interval, or if possible, a probabilistic representation of plausible values.

Unfortunately, **this report did not evaluate the risks associated with the modern use of chrysotile, and its mandate did not cover replacement products.** In fact, we can only surmise that the committee members did not discuss risk evaluation. Their discussions appear to have focused on the review of two risk-prediction models, that used by Hodgson and Darnton of the Health & Safety Executive in England, published in 2000, and that published by Berman and Crump in 2003.



WHEN WILL WE HAVE A REAL COMPARATIVE STUDY ? (CONTINUED)

The chemical composition and level of dangerousness of the different types of asbestos fibre are not the same; a total ban is therefore not the solution, and many have recognized that.

It would be appropriate to look back at the statements made over the years by some authorities with regard to the distinction between types of fibre and the choice between safe use and a total ban.

In 1979, the Government of Canada adopted a policy of safe and responsible use. By that, the government chose not to ban a substance of natural origin, but rather to manage the risks associated with its use, where applicable. Prohibition will be considered only if it is not possible to control exposure and the risks associated with it.

As early as 1982, at a conference on asbestos held in Montréal, the renowned **Dr. Irving Selikoff** indicated that if use of asbestos was properly controlled, it was not necessary to ban it, recalling that in the United States, the policy of controlled use takes precedence over banning, for asbestos as well as radium, beryllium, nickel, vinyl chloride, etc.

In 1984, a **Royal Commission on Matters of Health and Safety** looked at the use of asbestos in Ontario and concluded that amphibole fibres, namely crocidolite and amosite, are more dangerous than chrysotile and that, as the use of amphiboles is prohibited, asbestosis should become a "disease of the past". The Commission also confirmed that the risk of disease associated with chrysotile, both in processing and in mines, is much lower than for other types of asbestos fibre, and that the limit of 1 f/cc is appropriate, if applied correctly.

In 2002, the *European Commission's scientific committee* (CSTEE) recommended that studies be conducted on the **toxicology and epidemiology of substitute fibres**, as well as technologies aimed at developing less easily respirable fibres.

We should also mention the studies conducted by Dr. David M. Bernstein in Brazil, the United States

and Canada on the biopersistence of chrysotile fibres in the lungs. One year after the end of exposure, no more chrysotile is observed in the lungs, which is not the case with amphibole asbestos fibres, which remain there much longer. The biopersistence period of chrysotile resembles that of glass wool, and is lower than that of ceramic, amphiboles and several types of cellulose.

In 2004, during discussions on the Rotterdam Convention, the Government of Canada, among others, voiced its concern over the fact that the distinction was not being made between substances that can scarcely be used safely and those can be used without risk under controlled conditions. It indicated that it was also concerned about the fact that the process for inclusion in the PIC Procedure list could involuntarily lead to the use of substitute products, which have not been adequately evaluated and that could pose similar risks.

In 2005, pursuant to a request made by the *World Health Organization* (WHO) to consider replacement products for chrysotile, a meeting was held under the aegis of the **International Agency for Research on Cancer (IARC)**. The result was an admission that for the majority of substitute products evaluated by the international experts group, there was not sufficient information to determine which of the four IARC categories applied to these substances.

In 2007, WHO's *World Health Assembly* adopted a proposal to eliminate asbestos-related diseases founded on the need for **differentiating the various forms of asbestos**, consistent with international regulations and the most recent scientific data. The WHO also emphasized that countries should act based on their respective situations and distinctive characteristics, nationally and locally.

We should also recall that the official position of the *International Labour Organization* (ILO) is Convention # 162, which is still in effect and which proposes the safe use of chrysotile in the workplace, and not its banning.



World Health Organization • World Health Assembly

Final resolutions – page 86, item 10, 2007

“WHO will work with Members States to strengthen the capacities of the ministries of health to provide leadership for activities to workers’ health, to formulate and implement policies and action plans, and to stimulate intersectoral collaboration. Its activities will include global campaigns for elimination of asbestos-related diseases; bearing in mind a differentiated approach to regulating its various forms; in line with relevant international legal instruments and the latest evidence for effective interventions.”

Furthermore, to find wording about specific needs and conditions in the text of Outline on page 2:

“Countries can use this document according to the specific national and local conditions and available resources.”

WHA http://www.ilo.org/public/english/protection/safework/health/outline_npead.pdf

SERIOUS SUPPORT FOR SAFE USE

The Governments of Canada and Quebec have reiterated their support for the safe use of chrysotile. In the wake of the controversy over asbestos created by the Leader of the Liberal Party of Canada, the Prime Minister of Canada, Mr. Stephen Harper, stated last July: “We are maintaining our position in support of the safe use of chrysotile for export. (...) We are a country of regions. We can’t go around the country threatening to close down regional economies without compromising the future. (...)”

In addition, while continuing to support the policy of responsible use, the Canadian government emphasized that more than 90% of the global production of chrysotile is in chrysotile-cement products, in which the fibres are enclosed in a matrix, preventing them from becoming airborne.

On behalf of the Government of Quebec, Premier Jean Charest confirmed last October that the government did not intend to revise its traditional position on the safe use of chrysotile, and that it would remain in effect.



As for the regions in which the mines are located, the Mouvement PROChrysotile has stated: “Canada has unique expertise in practices for the safe use of chrysotile. Furthermore, a number of years ago, Canadian producers signed a protocol in which they committed to refuse to sell their products to clients that do not respect industrial hygiene standards. People should therefore stop unjustly disparaging this industry. Banning chrysotile means not only casting aside an industry that has contributed to the economic and social development of our region, but also abandoning a high quality fibre that is part of our mining wealth and that has been around for thousands of years.”

Moreover, the municipal authorities of the Town of Asbestos have announced that their main street will be repaved with a mixture of asphalt and chrysotile, mainly because of the fibre’s remarkable resistance, which increases the durability of infrastructure, and the fact that it allows for less ruts in roads, which makes them safer. Concrete proof that it is advantageous and safe to use chrysotile!

END TO A PUBLICITY CAMPAIGN IN THE UNITED KINGDOM

Just recently, the British government had to put an end to a publicity campaign produced by the *Health & Safety Executive* (HSE), the British agency responsible for workplace health and safety. The ad was claiming that 4 500 workers die each year following exposure to asbestos. Specifically, the HSE ad stated that nine carpenters, nine plumbers and nine electricians die of asbestos exposure each week. This was deemed to be untrue, and the campaign had to be withdrawn after the advertising content regulatory authority agreed with the complainants in this matter.

The following is the full text of the article on this subject by journalist Christopher Booker, as published in the *Telegraph* on October 3.



“Health and Safety Executive asbestos ads were wilfully misleading. The HSE's radio advertising campaign was designed to promote panic in the public”, says Christopher Booker.

By Christopher Booker
(Published October 3, 2009)

“One of the more disturbing stories that this column has followed over the years is that of the Health and Safety Executive's co-operation with two professional lobbies which stand to make billions of pounds out of promoting a confusion between different forms of asbestos. The HSE used to be quite clear that two forms of asbestos – blue and brown – are genuinely hazardous, but that white asbestos, by far the commonest type, poses “virtually zero” risk to health. It is a quite different mineral, usually encapsulated in cement for roofing, guttering and so forth.

As happened rather earlier in the United States (as recounted in *Scared to Death*, the book I wrote with

Richard North on scares), the confusion deliberately promoted between these different substances has given rise here in Britain to two amazingly lucrative lines of business.

One is run by those law firms which, as we see from the way they tout for business with regular advertising campaigns, make fortunes chasing compensation from insurance companies on behalf of people who can claim to have been exposed to any type of asbestos at work. The other is run by those specialist contractors, licensed by the HSE, which are able to grossly overcharge homeowners, businesses, churches and housing associations for the removal of harmless white asbestos cement.

The HSE has been shameless in conniving with both these rackets, not least by putting out advertisements designed to panic the public into falling for the wiles either of the lawyers or of rapacious removal contractors. That tireless whistleblower on asbestos scams, Professor John Bridle (long championed by this column) was so incensed that he complained to the Advertising Standards Authority that five of the HSE's radio commercials were wilfully misleading. Citing only data previously published by the HSE, he showed that the figures it was now quoting for asbestos-related deaths were wildly exaggerated.

The ASA has upheld all five of his complaints and ordered the HSE to amend its figures. Despite this reverse, the HSE will surely continue to sow panic. And Prof Bridle, through his *Asbestos Watchdog* website, will continue to help members of the public (including many *Sunday Telegraph* readers) to escape the clutches of the racketeers, often giving free advice while saving them sums totalling millions of pounds a year.”



THE DANGER OF NOT RELYING STRICTLY ON SCIENTIFIC DATA

Canada’s economy, like those of other countries with natural resources, is based in large part on the harvesting of those resources. Some anti-chrysotile militants are advocating a total ban by arguing that chrysotile only represents a small part of the economy of countries and constitutes too great a risk for human health. On the other hand, heeding this extremist rhetoric and ignoring the scientific data, particularly the most recent, could lead to a slippery slope. We should not yield to the pressure maintained by these alarmist debates, which are fed by sensationalism rather than discipline, because that could be damaging for the economy of countries. Controlled use is more demanding than simply banning a product, but is clearly much more responsible, particularly towards the most disadvantaged countries.

This could eventually mean banning other products that the “antis” also have in their sights, like nickel, lead, and cadmium, not to mention pesticides. All these resources are important to the economy and people’s quality of life. For example, the table that follows presents some resources for Canada, along

with the number of tons produced annually and the regions in which they are found, which clearly demonstrates of their importance. These data are drawn from a document of the Department of Natural Resources Canada, *Mineral Production of Canada* (2000).

If we rely uniquely on the alarmist discourse and ignore science, several of these resources could well find themselves on the chopping block, which not only does not reflect the safe use that can be made of them, does not differentiate among different components, but will also represent significant costs for all the businesses that use them to manufacture their products. The results will also be highly negative in terms of jobs. We should consider all of these factors and put our efforts into safe and responsible use, and only use banning as a last resort.

We must therefore be vigilant and keep the focus on the science in order to avoid the slippery slope, which could be very costly.

RESOURCE	NUMBER OF TONS PER YEAR	REGIONS
Cadmium	223	Quebec, Ontario
Lead	68 936	British Columbia, Nova Scotia, New Brunswick, Quebec
Uranium	8 702	Saskatchewan
Silica	1 979 000	Alberta, Ontario, Quebec
Chrysotile	125 000	Quebec
Coal	3 043 413	British Columbia, Alberta
Nickel	181 139	Quebec, Ontario, Manitoba

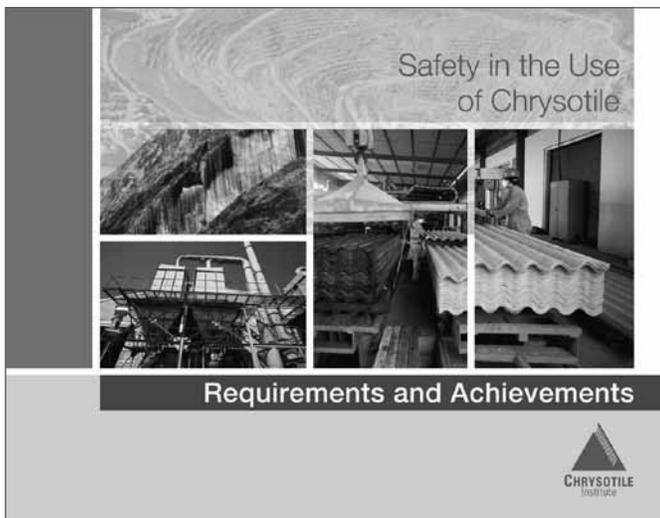


IS IT SAFE TO DRINK WATER THAT HAS RUN THROUGH CHRYSOTILE-CEMENT PIPES?

As early as 1974, the American Congress adopted legislation on drinking water, called the *Safe Drinking Water Act*. This Act provided that the *Environmental Protection Agency (EPA)* would determine the acceptable levels in drinking water of chemical products that pose potential health risks. These standards, called the *National Primary Drinking Water Regulations*, are in fact the maximum levels of contaminants that may be contained in drinking water without risking people's health. All public utilities must respect them. The target was set at 7 million fibres per litre of water for asbestos. This is a maximum that the EPA considered acceptable.



NEW PUBLICATION OF THE CHRYSOTILE INSTITUTE



The Chrysotile Institute has published a new brochure in English, French and Spanish. Entitled *Safety in the Use of Chrysotile: Requirements and Achievements*, it introduces the concept of controlled use, what it entails, the stages of its implementation, the responsibilities of each player in establishing and monitoring safe use, and summarizes some recent studies on responsible use in several countries.

To obtain a copy of this publication, please visit the Chrysotile Institute Web site: www.chrysotile.com or email at info@chrysotile.com

This Newsletter is available in English, French and Spanish.

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