Ministry of Health, Labour and Welfare

Japanese Public Hearings on a New Regulation

Regarding the Use of Chrysotile Asbestos

Tokyo, Japan,

April 8, 2003

On behalf of the Board of Directors of the Asbestos Institute, we would first like to express our thanks for giving us the opportunity to present our position regarding the use of chrysotile. Historically, Canada and Japan have been leaders in the production and the consumption of chrysotile asbestos and among the world leaders in the implementation of the controlled-use of this mineral resource. In the last 25 years, Japan imported close to 6 million tonnes of chrysotile for the construction of buildings. Japanese chrysotile-cement building materials are known around the world for their quality, durability and originality.

In both of our countries, there has been criticism against the position taken by the governments, in allowing the use of chrysotile asbestos, within a strict regulatory framework, as opposed to applying a simple prohibition, a measure we consider extreme. We hope to demonstrate to you today that the continued efforts of your country to make the chrysotile industry a safe work environment should be pursued for the good of workers and Japan's general population.

But first, we would like to describe our organization. There are several among you who are already acquainted with our Institute. The Asbestos Institute is a non-profit organization created in 1984. AI's Board of Directors consists of representatives from industry, trade unions and government sectors. Its primary role is to encourage the adoption and implementation of regulations, standards, working methods and the use of appropriate techniques and equipment for the safe use of chrysotile asbestos throughout the world, and to support the implementation of International Labour Organization (ILO) Convention 162 in chrysotile consuming countries.

For your information, the Canadian chrysotile industry provides direct employment to over 1000 people in two regions in the Province of Quebec: in Thetford Mines and Asbestos. Canadian shipments of chrysotile are approximately 250,000 tonnes for an amount of U.S. $110 million annually, shipped to over 50 countries.

1. Issue

No one in the chrysotile industry denies that this product, similar to hundreds of others used daily, can present a health risk if misused. Based on over a century of experience in the commercial exploitation of chrysotile, we strongly urged and assisted industry, trade unions and governments to adopt the principle of the safe and controlled-use in order to protect workers and the general public, while continuing to use this high quality mineral which has multiple properties that cannot be imitated by an alternative fibre, either man-made or mineral.

While most countries enforce the principle of safe use for chrysotile, this approach is not shared by the Member States of the European Union. Ten of the fifteen Member States have already almost completely prohibited its uses. The European Commission adopted a Directive, in July 1999 that eliminates almost all uses of chrysotile effective January 2005. Yet, this extreme measure was adopted without taking into account the position of international organizations, even in some of its own Member States, that favour the safe use, by ignoring available information from recent scientific studies, and without being certain that substitute products are harmless or less harmful. For example, on December 17, 2002, the Scientific Committee on Toxicology, Ecotoxicity and Environment (CSTEE) of the European Union published an opinion on the "Risk to human health from chrysotile asbestos and organic substitutes" in which it "strongly recommends expansion of research in the areas of toxicology and epidemiology of the substitute fibres". It should be stressed that many of the Member States of the European Union have created numerous jobs in substitute fibres and alternative products industries over the last ten years.

It is recognized that the controversy surrounding the use of chrysotile is an occupational health issue. The health effects of this natural fibre have been documented many times in serious scientific studies that are recognized by peers. What these studies demonstrate is that at low exposure levels, risks to human health are undetectable. This fact is recognized, in particular, by the International Labour Organization, the World Health Organization and the actual Japanese legislation. The chief problems associated with the use of various types of asbestos, were due to exposure to friable and thermal or acoustic insulation in public buildings and in ships, where the fibres were easily pulverized and became airborne due to wear or degradation. Moreover, these insulating materials often contained mixtures of fibres and amphibole asbestos. These fibres are proven to be much more harmful to health than chrysotile. Fortunately, they are no longer commercially exploited. This friable asbestos problem is mainly encountered in Canada, the United States and in Europe, and is the basis of today's cases of asbestos-related diseases, caused by excessive exposure to high levels of dust over long periods of time. Regarding chrysotile, this high level represents exposures above 15-20 fibres/cc[1], way above the airborne concentration of fibres observed in mines and factories in the last 20 years.

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[1] Weill, H, Hughes, J and Waggespack, C. Influence of dose and fibre type of respiratory malignancy risk in asbestos-cement manufacturing. American Review of Respiratory Disease, 1979; 120(2): 345-354.

Today's asbestos products, on the one hand, do not contain amphiboles – so we can address use of **chrysotile** products - and on the other hand, these are high-density products, where the fibre is encapsulated so that it does not become airborne throughout the life cycle of the product from its installation to its disposal. Everyone should always keep in mind a few extremely important facts when looking at alarming data regarding people suffering from asbestos-related diseases:

1) There is a long latency period, 20 to 40 years, from high exposure to asbestos and the development of pulmonary diseases. Problems we encounter today are the results of a situation that no longer exists;

2) At moderate or low exposure, problems are inherited from the use of amphiboles. These fibres are no longer in use.

3) Estimating the number of victims in future years (especially using the Peto or the EPA models) always leads to a large exaggeration, mainly because these models are based on heavy exposure to amphiboles and do not take into account the progress made in terms of industrial hygiene in the last 20 to 25 years.

Considerations Regarding Mesothelioma and Chrysotile

There is evidence for a difference in biological potency between chrysotile asbestos and the amphibole fibres types. Recently published data on the results of mineral contents of lung tissue by fibre type shows that large amounts (100-fold) of amphiboles are found in the lungs of cases compared to controls, while it was not the case for chrysotile.

But the major difference between the types of asbestos is their capacity to induce mesothelioma. In fact, this disease is linked to exposure to the amphiboles or a mix of fibres containing amphiboles. In 1996, the British Health & Safety Executive (HSE) underlined that "very few cases of mesothelioma can be reliably attributed to chrysotile, despite the many thousands of workers who have had massive and prolonged exposures to this type of asbestos. In contrast, mesothelioma has been observed among some workers who experienced only brief exposures to amphiboles."[2] This observation was made after studying a series of epidemiology research in several countries all arriving to the same conclusion. Even during the French hysteria about a projected dramatic increase in the number of cases of mesothelioma among workers in the next decades, the French National Medical Academy clearly stated that chrysotile, except maybe at very high concentrations, never caused mesothelioma.

This is in agreement with other reports on residents of chrysotile mining towns in Québec and workers of chrysotile-cement factories in Europe, which have consistently failed to demonstrate excess respiratory disease incidence.

Supported by a large consensus among scientists, we would like to state that any alarmist reports about the numbers of mesothelioma cases, present or future has no

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[2] Health and Safety Executive, Review of Fibre Toxicology, 1996

relation with present, past or future exposure to chrysotile. We support the Japanese legislation, which has already banned use of amphiboles, but for this reason and others we will describe further on, chrysotile should not be added to the prohibition list.

We must remember that representatives from 137 member countries of the ILO unanimously adopted Convention 162 on "Safety in the Use of Asbestos" in 1986. This Convention is the basis for the safe and controlled-use approach that is a recommended guideline for developing policies on the use of chrysotile in the world.

2. Safe use of chrysotile

The very concept of safe use is from Convention 162 of the ILO. This Convention recommends a strict framework for the use of chrysotile, but it does not include prohibitions other than for crocidolite and for loose, friable asbestos in fireproofing applications. This convention, as well as the recommendations of the World Health Organization (WHO), mentioned during a meeting of experts in Oxford in 1989, remains the international point of view favouring the controlled-use of chrysotile asbestos approach.

We must stress at this point, that Convention 162 provides for the substitution of chrysotile or materials that contain chrysotile by a substance known to be harmless or less harmful by the competent authorities. As we will see later, few substitute products meet this criterion.

Countries are encouraged to ratify and implement ILO Convention 162 to ensure that chrysotile asbestos is used safely in their country. Countries that choose not to ratify this regulatory instrument officially should include the controlled-use approach in their national legislation for all activities involving exposure of workers and the general public to asbestos fibres. This is the case for most consumer countries of chrysotile nowadays.

The principles mentioned in the Convention cover all sectors where a risk of occupational exposure to asbestos exists. This includes extraction work and mineral processing, production, usage, application, removal, repair, maintenance or demolition of products that contain asbestos. Such is the case in Canada and the U.S.A.

All high-density products containing chrysotile fibres (defined as products that cannot be dispersed, pulverized or reduced to powder under hand pressure when dry) should be allowed. For example, asbestos cement pipes and slates, friction products, sealing joints, asphalt roof coatings, textiles (coated).

The use and sale of crocidolite fibres, as well as products that contain this fibre, should be prohibited. The spraying of all forms of asbestos should be prohibited.

Controlled-use involves the adoption and application of a standard for maximum exposure to airborne fibres. Thus, according to recommendations of the WHO, employers must ensure that employees are not exposed to a concentration of over 2 fibres per cubic centimetre of air over an eight-hour day, as stated in the "Determination of fibre number concentrations, A recommended method, by phase-contrast optical microscopy (membrane filter method)" published by the WHO or an equivalent method. As soon as possible, this limit should be lowered to 1 fibre/cc air, weighted average for an eight-hour period. The existing Japanese legislation is already lower than the limit recommended by the WHO.

The ILO Convention also makes provisions for the following sectors:

- Supply of appropriate work clothes that should not be worn outside the work place.
- Promotion and distribution of information and training of all interested parties regarding the risks to health with exposure to asbestos, as well as prevention and control methods.
- Use of a suitable label with pictograms and warnings that should be placed on bags containing asbestos fibres and on products containing asbestos to inform users that they should use appropriate equipment so as not to create dust.
- Elimination of waste containing asbestos in a manner that does not present a health risk to workers or residents in the vicinity of the factory.
- Medical examinations to monitor worker health in relation to occupational hazards and to detect occupational diseases by exposure to asbestos.
- Application of government or independent provisions and sanctions if necessary.

We have attempted here to summarize the underlying principles of controlled-use in a few lines. Over the last couple of decades, the international chrysotile industry has implemented these measures throughout the lifecycle of this fibre. We are proud of our accomplishments, as we believe this industry can serve as example for many others concerned with occupational health and safety.

Controlled Use: Myth or Reality?

The majority of international experts, both opponents and advocates of safe chrysotile use, recognize that these controls exist and that when they are implemented, they provide adequate protection to workers in the mining and manufacturing sectors. To prove this, the most recent data compiled by the Asbestos International Association shows that 99.5% of workers in the international chrysotile industry (miners, employees at treatment and transformation factories), work in an environment that meets the standard recommended by the WHO of 1 fibre per cc.

It is understandable to question the application of safe and controlled-use principles for workers in the construction industry. However, observers recognize that workers in specialized fields can be taught these rules and how to follow them properly. They are aware of the risks and already apply protective measures for their health and safety.

Thus, by applying the specific measures suggested by the international organizations, including education and training, recommended work methods and the use of appropriate tools and equipment the risk to the health of construction employees, including unskilled workers, will be undetectably low. The principle of controlled-use was not created by the chrysotile industry and does not apply to this industry alone. This is a general principle of risk management recommended for all products or technologies that may present a risk to health, in the absence of appropriate controls and guidelines.

Industrial development has brought us numerous potentially hazardous products which we use daily and which are far more dangerous than chrysotile. For example, the use of certain natural resources like lead, mercury, cellulose, as well as most chemicals such as pesticides, must always be controlled in order to prevent possible negative health effects to humans and the general environment.

The majority of responsible manufacturers of substitute fibres for chrysotile, as also mentioned by the Experts heard by the World Trade Organization panel in January 2000, recommended that the principles of controlled-use are specifically those that must be implemented when substitutes for chrysotile are used.

This brings us to an interesting paradox. Opponents to the safe and controlled-use of chrysotile assert, without hesitation, that this practice is a myth. They even qualify it as a "fantasy", since there are inconveniences that make its application "impossible" on construction sites. How can an unskilled worker, when he is manipulating products that contain chrysotile and faced with these "inconveniences", alternatively, meticulously, use substitute products safely at a similar worksite, but cannot do so with products containing chrysotile? This lack of logic makes us wonder.

Many companies and numerous workers must be concerned with applying the principle of controlled use. Ignorance of this principle for chrysotile is not only refusing to believe the evidence, but also accepting the fact that as soon as a product presents a potential risk to the health and safety of the workers who handle it, it must be prohibited. In this way, the door is wide opened to the adoption of excessive protectionist regulations for unspecified public health issues, or due to the pressure of lobbying from competing alternative products manufacturers. This year alone, the European Union has selected for prohibition or strict regulations nearly **1,500 natural substances and industrial products**, including a progressive prohibition of PVC. The Canadian chrysotile industry is calling upon the wisdom of Japanese elected officials so that they do not yield to this ill-conceived pseudo protection of public health.

It is undeniable that industrial development has contributed to improving our societies, but it has also taught us to create and manage many products that are potentially more

dangerous than this natural resource, chrysotile. International standards were developed and implemented to ensure manufacturing and the use of numerous products while minimizing the risks. The search for "zero" risk that underlies all of the anti-chrysotile propaganda is unrealistic. All activities involve some risk. It is this absurd quest for zero risk that should be qualified as a "fantasy".

3. Substitute Products

A very simplistic equation circulates: no asbestos = no danger. It was thought that it would be enough to replace chrysotile fibres with other fibres. To polish their image and avoid responsibility for their past activities, many manufacturers decided to cease using chrysotile in as many products as possible, while using substitutes that had not been tested either for technical or medical problems.

Replacing chrysotile is a very complex operation. The risks and dangers with many other fibres are sufficiently clear now that legislators are starting to impose regulatory constraints on these substitutes. The regulatory authorities are invited to apply the standards for chrysotile to all industrial fibres if they truly want to protect the health and safety of workers.

A Health Issue

Since the main argument used to substitute chrysotile is based on the premise that its uses present an unacceptable health risk, it is essential to ensure that the replacement products are harmless or less harmful, as indicated in Convention 162 from the ILO, and are at least of the same high quality. For most of these substitute fibres and products, this is **not the case!**

Since 1993, a group of experts convened by the WHO, stated in Environmental Health Criteria 151, that all respirable and biopersistent fibres must be tested for their toxicity and carcinogenicity. In fact, recent studies show that many of the fibres used to replace asbestos in many products are not without danger. These are primarily glass fibre, rock wool, refractory ceramic fibres, aramid fibres and cellulose fibres. The same year, the International Program on Chemical Safety (IPCS) clearly recommended that "exposure to any breathable and durable fibre should be controlled in the same way as asbestos until such time as it is proven that less stringent controls would be sufficient".

Germany classifies glass wool, rock wool and slag wool substrates as carcinogenic products. Several other countries have also taken the same approach and have adopted standards for exposure and work methods for several fibres. However, the fact remains that to effectively protect the health of workers, regulations should apply to all fibres. The European Commission further announced, in 1994, a complete study program on fibres that should make it possible to establish a new classification according to their carcinogenicity.

The scientific community agrees that there is no valid scientific evidence that supports the assumption that substitutes are safe. Even the "Institut National de la Santé et de la

Recherche Médicale (INSERM)" in France, recognizes that the scientific data is insufficient on substitute products to make a decision regarding their harmfulness.

When the **Court of Appeals of the United States reversed, in 1991, the asbestos ban and phase-out rule** proposed by the EPA, it did stress that national legislators should consider the cost of introducing measures to ban a product. It also stressed that substitute products for products that contain chrysotile also present potential risks to human health that could be more serious than potential risks from asbestos (see appendix I – Asbestos situation in the United States today).

This is also a rising concern among workers and regulatory agencies. The ILO recently adopted a Code of Practice for the use of Synthetic Fibres, which recommends the same precautionary measures as with chrysotile. This comes as no surprise as manipulating, mixing, cutting and unprecautionary handling of all fibrous materials can generate dust. In the case of chrysotile, international references are available for determining what is a reasonable limit of dust not to exceed. This is unfortunately not the case for most substitute fibres.

The prohibition of asbestos would mean substituting a known and adequately regulated product with others that are unknown and generally not regulated. Several of these products have similar, if not greater, effects on health without the benefits of chrysotile. For example, recent studies show that the synthetic cellulose used to replace chrysotile in fibrous cement products and refractory ceramic fibres, are in certain cases more biopersistent than chrysotile.

Some New Evidence

<u>In the United States</u>

The U.S. EPA recently announced a peer consultation workshop to review and update the current asbestos cancer risk assessment methodology. The purpose of the workshop was to discuss the scientific merit of the proposed methodology developed for EPA by two scientists, Dr. Wayne Berman and Dr. Kenny Crump. The proposed methodology distinguishes carcinogenic potency by asbestos fibre size and asbestos fibre type and favours use of a new exposure index to characterize carcinogenic risk. The workshop was held on February 25-27, 2003. Copies of the proposed asbestos cancer risk assessment methodology can be obtained from the EPA, OERR web page (<u>www.epa.gov.superfund</u>).

The need to review and update EPA's current assessment of asbestos cancer risk assessment was felt because EPA's assessment had not changed since 1986. The 1986 assessment considered all mineral forms of asbestos and all asbestos fibre sizes to be of equal carcinogenic potency. However, since 1986, there have been substantial improvements in asbestos measurement techniques and in the understanding of how asbestos exposure contributes to disease. To incorporate the knowledge gained over the last 17 years into the Agency's toxicity assessment for asbestos, EPA oversaw the

development of a revised methodology for conducting risk assessments of asbestos. The proposed risk assessment methodology distinguishes between fibre sizes and fibre types in estimating potential health risks related to asbestos exposure. The Experts consulted for this review include scientists with extensive expertise in relevant fields, such as biostatistics, fibre identification, inhalation toxicology, and carcinogenic mechanisms. Comments, conclusions, and recommendations on the proposed methodology will be published later this year.

Regarding Comparisons Between Fibres

Because the use of substitute fibres to asbestos is relatively recent, no epidemiology studies can presently evaluate their human health effects. With the negative publicity arising from the past uses of asbestos fibres, these new fibres were developed to take over a growing market, encouraged by political stance (like in the European Union) supporting their use. Many scientists have raised serious concerns about possible health effects of these new materials and especially about the fact that the reliable scientific information is very meagre or non-existent. Today, it has become abundantly clear that "biopersistence" is the key parameter to take into account when comparing the toxicity of respirable fibres.

In the 1990's, it was confirmed by numerous scientists in several studies that respirable fibres have different biopersistence characteristics, which may vary according to their respective manufacturing process and chemical composition[3]. Current international efforts in developing standardized methodology for durability and biopersistence assessment of all industrial fibres are certainly opportune, as this parameter now appears to be an **important element for carcinogenic risk evaluation** and eventually occupational standards setting policy. Indeed, the 2001 *IARC Monographs Programme* to re-evaluate carcinogenic risks from airborne man-made vitreous fibres reinforces the concept that **"high biopersistence** of inhaled fibrous materials is correlated with **high carcinogenicity"**. The Monographs Working Group concluded that only the more biopersistent materials remain classified by IARC as possible human carcinogens. As a matter of fact, the labelling regulation in the European Union states that respirable particles with very short biopersistence can be exempted from the "carcinogen" label. Results of the ongoing study by three laboratories in Switzerland, Germany and in the U.S.A. demonstrates that the **half-time clearance** for Canadian commercial chrysotile, i.e. the number of days necessary to eliminate half of the fibres remaining in the lungs after end of exposure, is about **15 days**. This number is in accordance with other data published recently about chrysotile[4], and in line with epidemiology studies confirming that amphiboles are more fibrogenic and carcinogenic than chrysotile (**amosite** asbestos has a **half-time clearance of ~ 466 days**[2]).

How does chrysotile compare with the most commonly used replacement fibres? Less durable, according to recent studies using the same methodology. For instance,

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[3] See for instance : Wagner, JC and Pooley, FD (1986) Thorax **41**: 161-166; Wagner JC et al (1988) Br. J. Ind. Med. **45**:305-308; Albin et al (1994) Occup Environ Med **51**: 205-211; Cullen et al. (2002) Inhalation Toxicology **14** : 685-703.

[4] Bernstein et al.(1999) 7th Int. Symp.Part. Toxicol., Maastricht; Bernstein (2000) The Toxicologist Vol. 54, p. 318.

ceramic fibre (RCF 1) has a half-time clearance of **60 days**[5], **aramid** fibre around **90 days**[6] and **cellulose** fibre over **1000 days**[7].

This new information is relevant and is in accordance with the vast number of studies on asbestos related diseases, which is much larger than those dealing with other fibres. **First**, people who were diagnosed with asbestos-related diseases were exposed to the more biopersistent amphibole types or mixtures containing amphiboles. **Second**, chrysotile has been used for more than a century, often at high exposure levels before the 1960's, while alternative fibres are of recent use. **Third**, with today's working conditions using exclusively chrysotile fibres in high-density materials, pulmonary diseases linked to fibre exposure will be eliminated.

Fibre-Cement Without Chrysotile

On a worldwide scale, 90% of the chrysotile used is for the manufacturing of asbestos cement. This includes corrugated sheets, flat sheets, slates, pipes and water tanks. Over the last decades, many materials were developed to compete with asbestos cement products (a/c), but they are not usually in the form of asbestos cement. For example, alternative pipe products are made with polyvinyl chloride (PVC) or ductile iron.

The characteristics of these products vary widely making it impossible to establish clear comparisons. However, it should be noted that no single fibre can replace chrysotile in all its diversified applications. Furthermore, their use is somewhat more limited and involves substantial economic restrictions compared to chrysotile. These would include price, health risk, durability, energy consumption and environmental considerations that are higher than for chrysotile.

No fibre can replace chrysotile for the manufacturing of pipes. Tests were carried out with various materials, but none were satisfactory. Natural or synthetic fibres can therefore only replace chrysotile for the manufacture of flat or corrugated slates, however for the latter, the resistance provided by substitute fibres restricts manufacturing only the thickest sheets and with the highest level of corrugation.

Chrysotile and Portland cement have a binding property that cannot be matched by any other combination of materials. Introducing fibrous cement technology without chrysotile is therefore not easy. Dansk Eternit in Denmark and Supradur in the United States are faced with huge lawsuits due to the fast deterioration of their fibrous cement products that do not contain chrysotile. Similar tests on cellulose based composite products in Central America led to disastrous results and these products were quickly withdrawn from the market. Based on experiments carried out to date, it appears that fibre-cements that do not contain chrysotile are particularly sensitive to climatic

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[5] Muhle & Bellman (1997) Ann. Occup. Hyg. 41: 184-188.
[6] Bellman et al, (2000) Toxicol. Sci. S. 237-250; Franhofer Institute (1998) Report, Hannover, August 1998.
[7] Cullen et al. (2002) Inhalation Toxicology **14** : 685-703.

conditions, particularly in hot and humid areas and areas with frequent freezing and thawing cycles.

Although experiments were carried out with a score of natural and synthetic fibres, only two, cellulose and the polyvinyl alcohol (PVA) resulted in any commercial success. While the use of these products indoors does not seem to pose problems, their external use must be limited to areas with suitable climatic conditions.

In addition to the resistance and durability aspects, chrysotile-cement is less expensive than its competitors because chrysotile fibre is cheaper. Cellulose costs, on average, 50% to 100% more than chrysotile. PVA can easily be 10 times more expensive. Chrysotile is a natural mineral that is extracted without affecting the environment and, in the case of Japan chrysotile-cement is produced locally under safe conditions, perfectly adapted for the climate and the environment.

4. The Motivation Behind Prohibitionist Movements

For most people, the word "asbestos" inspires a negative reaction. In some countries, especially in Western Europe, this is even an obsessive fear. We all know now that the bad conditions to which workers were subjected in the past, in mines, manufacturing plants and in spraying pulverized products, are the responsible for incurable, sometimes fatal, industrial diseases. With improved scientific knowledge in toxicology and epidemiology, it is now recognized that diseases related to asbestos have a long latency period (from 20 to 40 years) and that chrysotile is much less problematic than amphiboles. It is not surprising to diagnose today diseases related to the past use of asbestos. They are the sad consequences of the past, but they have nothing to do with working conditions prevailing now.

However, people are more influenced by new alarmists than by concrete facts. It is easy to generate fear, to simplistically associate today's diseases with current conditions of use and to confirm without solid proof that substitute fibres are probably less harmful. But this is completely inaccurate and approaching dishonesty. In such a context, the solution also appears very simple – ban rather than regulate. But this is also trickery.

Reality is quite different. Between 1950 and 1999, over 22 million tonnes of asbestos were used in the fifteen countries that now form the European Union, for the construction of commercial buildings and distribution systems for drinking water and waste water. Europe could not have reached its current level of development without this considerable uses of chrysotile products. Now that major infrastructure work has been completed in Europe, high-technology industries are producing expensive substitute fibres. Finished products that contain these fibres are of equal or inferior quality than those containing chrysotile, but their prices are much higher and their lifespan is more limited. Manufacturers are therefore looking for ways to eliminate the

competition. It is not surprising to see these firms and their supporters interested in feeding the current European psychosis over asbestos.

Make no mistake about it: The basis for the current debate is not one of occupational health and safety, even less an issue of public health. We are witnessing a commercial war with huge economic stakes, involving multinational corporations, mainly European, that profited from asbestos after WWII, too often without concern for worker health and safety. Today, they would like to continue in the same vein with different materials and regrettably, without insuring beforehand that the substitutes are safer than asbestos.

Conclusion

Chrysotile asbestos is one in a broad range of natural and synthetic products that certainly involve potential danger. Many heavy metals, compounds and organic solvents, radioactive substances and pollutant gases are used every day and it is impossible to even think of banning them completely. We can regulate the working conditions and use of these products, focus on prevention and provide workers with appropriate training. This is how controlled use is defined. This is precisely what has been done with chrysotile asbestos for decades.

We cannot forget the lessons from the past. In many industrialized countries, like Japan and Canada, people are being diagnosed with lung diseases related to past exposure to asbestos. But, we must always remember that this health problem is associated, on one hand, with high exposures from the past, which no longer occur today, and on the other hand, with workers' exposure to amphiboles, which are no longer used today. We do not have the right to silently overlook what actually happened several decades ago. Today, things are quite different. We know chrysotile asbestos can be controlled effectively and when this is done, health risks are undetectable.

Thinking about banning a product to exorcise its legacy from the past is understandable. But how would it change the issue? Few people think about banning cars in spite of the thousands of road accidents victims and the consequences on the health of car users (see appendix II – "Car fumes kill more than crashes"). Control may be more demanding, but also much more socially responsible.

It is not completely wrong to believe that bans can be, in most cases, an escape route that is both dangerous and irresponsible. Banning all forms of use without regard to the context of use in favour of substitute substances leads us to a dead end. This can easily lead to a false sense of security. It is not true that simply banning products automatically guarantees safety. It is a serious and major mistake to view things this way, especially knowing that chrysotile appears to be among the least hazardous industrial fibre used nowadays.

Canada is highly interested by the regulatory changes in Japan. As one of the world's largest exporter of chrysotile, and promoter of the safe-use principle for minerals and

metals, Canadian industry, trade unions and governments are concerned by any decision Japan may take that may be contrary to this principle.

Therefore, we would greatly appreciate that our point of view be presented to the competent Japanese authorities. We were informed very recently of this window of opportunity, and considering the organizational constraints, respectfully request that Canadian representatives be invited to participate at the public hearings organized by the Ministry of Health, Labour and Welfare.

We would be grateful if this opportunity to present our position could be confirmed as soon as possible.

Thank you in advance for your consideration.

Denis Hamel, Director

The Asbestos Institute

Montreal, Canada

March 28, 2003.

Appendix I

ASBESTOS SITUATION IN THE UNITED STATES TODAY

Asbestos is a valuable raw material in the United States today for production of vehicle braking systems, asphaltic roof coatings and gaskets. The U.S. consumes about 13,000 metric tonnes of chrysotile asbestos per year. And, asbestos cement pipe and sheets are imported for use. Asbestos is no longer used for friable insulation or similar products that caused high worker exposures many decades ago.

Although use of asbestos is stringently regulated in the United States to assure that workers and consumers are not significantly exposed to asbestos fibers, only one restriction exists on the types of products that can be manufactured with asbestos. Product manufacturers are free to market any asbestos-containing product that was being marketed in 1989; EPA approval must be obtained before marketing any new asbestos-containing product not being produced in 1989.

In the mid-1980's, public panic over asbestos in buildings — which was later discovered to have been unwarranted — prompted the U.S. Environmental Protection Agency (EPA) to propose a ban on all asbestos-containing products. EPA's proposal resulted in a massive compilation of information on the benefits of asbestos in many products, as well as the potential risk for human exposure in such uses. Based on this comprehensive record, the U.S. Court of Appeals for the Fifth Circuit found such a ban unwarranted. Although the Court allowed EPA to require its prior approval before new products were developed, it found all existing uses must be allowed to continue.

The U.S. Court found a ban of asbestos-containing products unwarranted because:

- No significant human exposures to asbestos fibers would occur if the products were produced and used under controlled conditions;

- Substitutes for asbestos-containing products themselves posed potential human health risks that could be more significant than any potential risks from asbestos; and

- Asbestos-containing products offered significant benefits not offered by substitute products.

Production and use of asbestos-containing products, like production and use of many other chemicals that can pose risks if not adequately controlled, are regulated in the United States not only by EPA, but also by the Occupational Safety and Health Administration (OSHA) and the Department of transportation (DOT). EPA regulates air and water emissions from asbestos production facilities and provides rules for disposal of asbestos-containing waste. OSHA has established a comprehensive health standard for asbestos that requires workers with potential exposures to be aware of and trained

to minimize any asbestos risks and sets a stringent limit for airborne exposure. DOT regulates transport of asbestos.

As a result of comprehensive regulation in the United States today, exposures to workers or the public are minimal and do not pose significant risk. At the same time, the public derives benefits from the unique qualities of this mineral as an effective and low cost raw material for construction and friction products.

THE STATUS OF ASBESTOS PRODUCTS IN THE U.S.
(DECEMBER 1999)

PROHIBITED	AUTHORIZED
Corrugated paper	Corrugated asbestos cement sheet
Commercial paper	Flat asbestos cement sheet
Flooring felt	Vinyl asbestos floor tile
Rollboard	Asbestos cement pipes
Speciality paper	Asbestos cement shingles
New uses of asbestos	Friction materials
	Brake linings
	Clutch facing
	Disc brake pads
	Asbestos clothing
	Automatic transmission component
	Roofing felt
	Roof coating
	Non-roof coatings
	Millboard
	Pipeline wrap
	Acetylene cylinder filler
	Asbestos diaphragms
	High-grad electrical paper
	Packings
	Sealant tape
	Brake blocks
	Missile liners
	Arc shutes
	Battery separators
	Reinforced plastic
	Textile products
	Gaskets

Appendix II

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Health

'Car fumes kill more than crashes'

Car fumes worsen symptoms for asthma sufferers

The emissions from car exhausts are responsible for more deaths than road accidents, according to World Health Organisation (WHO) research.

A study looking at France, Austria and Switzerland found that the number of people dying from respiratory or cardiovascular problems which could be attributed to car fumes far outweighed the death toll from crashes.

The WHO will now ask 70 environment and health ministers gathering for a conference in London to adopt a new charter on transport policies to reduce the effects of pollution.

Dr Carlos Dora from the WHO European Centre for Environment and Health said: "The growing evidence that air pollution is causing a major health burden adds to effects of road traffic through noise, accidents and barriers to cycling and walking.

"We are paying a huge price for this excessive road transport with our money and our health."

The research found that one third of all harmful particulate air pollution was caused by road transport, and that long term exposure to pollution caused an estimated 21,000 premature deaths a year across the three countries.

This is far higher than the 9,947 who died that year as a result of road accidents.

Bill runs into billions

In addition, the researchers calculated that the car fumes caused 300,000 extra cases of bronchitis in children, and 15,000 extra hospital admissions for heart disease made worse by the pollution.

They calculated that the cost of dealing with all this was £27 billion Euros per year - about £16bn.

But a British GP, a former chairman of the GPs in Asthma group, said that while car pollution worsened existing asthma, there was little evidence that it actually caused the condition.

Dr Dermot Ryan, a Loughborough GP, said that the focus should fall instead on cigarette smoking as the primary villain.

"I'm not too sure car pollution is the number one enemy. 400 people a day are dying in this country due to cigarette smoking," he said.

He recalled a recent study that compared the incidence of asthma between Munich, a fairly non-polluted city, and Leipzig, a city with a large degree of particulate-producing heavy industry.

Asthma was found more widespread in Munich, he said.

"It's difficult to prove this cause and effect, whereas we can prove passive smoking is very, very damaging to children, and actually causes asthma."

Pets, cookers and carpets to blame

Studies have linked a number of other factors with childhood asthma, among them not breastfeeding, smoking while pregnant, carpets, gas cookers, and pets.

Roger Higman, of Friends of the Earth, said that it was clear to his organisation that fumes were at least as big a killer as road traffic accidents.

He said: "What this research shows is that air pollution is a serious problem - and should be treated as such.

"A lot of money goes into making cars more safe, but not as much is spent tackling air pollution."

He called for more investment in public transport.

Source: (http://news.bbc.co.uk/1/hi/health/369160.stm)