

15 POLICY CONSIDERATIONS

15.1 DECLARATION OF THE NATIONAL ASBESTOS SUMMIT

The national asbestos summit held in November 1998 and attended by various stakeholders, including Government, affected communities, labour industry, NGO's and an international delegation, concluded that asbestos should be phased out as soon as practically possible, noting that there may be no suitable alternatives for certain applications⁹⁸:

- That asbestos is a hazardous substance and has caused diseases to people exposed
- The legacy of human suffering and environmental damage that we inherit from a century of mining and irresponsible use of asbestos, and the efforts of affected communities and workers to bring these to the attention of government
- That asbestos should be phased out as soon as practically possible, noting that there may be no suitable alternatives for certain applications

During the Summit, four commissions discussed the following topics:

- ***Community Development and Rehabilitation***
- ***Health Remediation and Compensation***
- ***The Regulatory System***
- ***The Asbestos Industry and Future Applications of Asbestos***

These four commissions recommended that the responsible authorities should:

- Review the compensation and other remedial systems
- Strengthen the establishment of a comprehensive healthcare system, including a Presidential Asbestos Fund and a Parliamentary Commission of Inquiry
- Intensify the inclusive processes of rehabilitation and sustainable development
- Establish research towards phasing out chrysotile and replacing it with alternatives
- In the interim, strengthen the regulatory system of the controlled use of all chrysotile asbestos-containing materials
- Ensure an enabling integrated legislative framework, including a ban on non-chrysotile asbestos-containing materials

15.1.1 Commission 4: The Asbestos Industry and its Future Applications

The fourth commission formally brought together stakeholders in the asbestos-user industry, including company representatives, trade unions and NGO's. This group acknowledged the problems of job losses as well as continued exposure of workers to possibly harmful conditions at all stages of chrysotile asbestos use. They produced a list of consensus-based recommendations for improved workplace safety and increased use of substitute materials.

15.2 OPPORTUNITIES AND CHALLENGES REMAINING SINCE THE 1998 PARLIAMENTARY ASBESTOS SUMMIT

A follow-up study, undertaken by a group of American Faculty Advisors and students in 2001 and involving eight weeks of research in South Africa and several months of study in the United States, made the following comments regarding the Asbestos Summit's Fourth Commission's conclusions⁹⁹:

- "And while some of the recommendations, such as an Asbestos Substitution Working Group, have not yet been implemented, many of the concerns about workplace safety have been incorporated into the Amended Asbestos Regulations which were drafted by the Department of Labour Advisory Council in August 1999"
- "While the emphasis in new regulations on preventative measures was a major improvement over the past rules, the omission of procedures for a phase-out of chrysotile asbestos remains disappointing. Such a phase-out had been negotiated at the 1998 Summit and the lack of resolution reveals the continue disagreement between manufacturers and labour on this question"
- "Even though no codified ban on amphibole asbestos exists, manufacturers now tend to avoid the material"

This study, which included: "hundreds of interviews with government officials, residents of contaminated rural villages, trade unionists, researchers, health care providers, and local activists to assess the burden of asbestos related diseases in areas in the Northern Cape and the North-West Provinces", had the following comments to make regarding the implementation and policing of regulations governing the controlled, safe use of asbestos-containing products:

- "Despite information on proper procedures provided by the asbestos-cement manufacturers, dangerous practises like high-speed dry cutting and sanding occur. Inevitable sheet breakage, and abrasion between sheets during the manual unloading of trucks still results in exposure to asbestos fibres"
- "A related concern is the difficulty in ensuring that employees adhere to company policies on personal safety. Representatives from almost every company we interviewed voiced this concern, faulting both supervisors and workers for failing to enforce the health and safety standards"

15.2.1 A Proactive Policy to End the Use of Chrysotile

In the light of these findings, the study recommended that the use of (chrysotile) asbestos be proactively phased out:

- "It is evident that health risks persist under the current system. According to the asbestos industry, the safety of chrysotile is predicated on its "safe and controlled use". If the safe use cannot be ensured, despite the efforts of manufacturers and inspectors, then chrysotile is inherently too dangerous for continued use in South Africa. If the human components undermine protection programmes of these industries, then production must be changed to incorporate less intrinsically hazardous substances"
- "Chrysotile consumption by South African manufacturers has declined dramatically in recent years due to substitution programmes and plant closings. But, because of the inherent risk of chrysotile use, it is irresponsible to rely on market mechanisms alone to eliminate chrysotile use. There must be a proactive policy to end the use of chrysotile"

15.2.2 Replacing Asbestos with Alternatives/Substitutes

With regard to replacing asbestos with alternative fibres and/or substitute products, these researchers made the following comments:

- "To recommend that chrysotile be phased out, we must be sure that the alternatives are safer. Trade union representatives expressed concern about the materials used in the new formulations and said that the union was pressuring management to ensure that no new occupational hazards are introduced"

Members of this research team interviewed representatives from a number of companies that make use of asbestos-containing materials in the production of their products. The study report made the following comments about these interviews:

- "The transition to asbestos substitutes has been underway in industrialised countries since the late 1970s, but is occurring more slowly in South Africa. To evaluate this delay, it is vital to understand both the general and specific problems in converting production to substitute materials. We interviewed five Gauteng asbestos-user manufacturers producing a wide range of products to assess the status of substitution and found a corresponding diversity of results and prognoses for further reductions in chrysotile use"
- "The two major obstacles reported by industry representatives are the expense of non-asbestos substitutes, and technical challenges of their development. Most of the companies we interviewed cited technical difficulties as a significant source of delay with substitution programmes. According to industry officials, another impediment to substitution is the relatively high cost of other materials, and the expense of converting production capital to utilise the substitutes.

This study report reflected the following comments regarding specific companies that they had interviewed:

- "In the late 1980s, Everite attempted to adopt an asbestos-free cement technology known as "Nutec". However, technical barriers impeded the use of Nutec in moulded goods and profile sheets used for roofing. The company had publicly announced that its Kliprivier, Gauteng plant would be asbestos free by August 2001, but because of problems with equipment installation, the target date for 100% condition had been postponed to February 2002"
- "Insulectric, which produces insulation boards for industrial and railway applications, has not yet developed a commercially viable asbestos-free board to meet customer demands. This technology has been elusive because insulation boards must withstand extreme conditions to meet safety standards. The company is currently testing a locally developed substitute"
- AC Pipes reported the most difficulty with substitution because of high-performance requirements. It has been unable to develop an asbestos-free high-pressure pipe, an application that accounts for 80% of its market. The investment in current equipment makes it difficult and expensive to switch to alternatives. Furthermore, PVC alternatives are only useful for small diameter pipes (< 300 mm) and steel for larger ones (>450 mm), so asbestos cement has no alternative in the mid-sized range"
- "Conversion of Everite's manufacturing technology to Nutec was expensive, costing approximately R80 million. The result was that the company could not afford to convert both Brackenfell and Kliprivier, its two major production plants. Everite opted to consolidate their operations at the latter, eliminating approximately 400 jobs at Brackenfell. Interviews with bread winners whose jobs were "eliminated" speak of great family hardship at the loss of gainful employment at such short notice."

- "In the production of industrial gaskets and packing, Klinger has succeeded in converting about half of its production to substitutes, but continued market demand for asbestos-containing materials precludes any further conversion. Customers are reluctant to pay the increased cost for the substitutes - raw material prices are often four to five times that of asbestos. Most of the expensive substitute fibres are imported, and representatives from Klinger expressed concern that, by purchasing raw materials outside the country, the company was putting strain on the nation's foreign exchange"
- "Several companies expressed concern that the production volumes associated with lower demand for non-asbestos products would not sufficiently utilise production capacity, making continued operation unprofitable. Overcapitalisation is particularly problematic during the transition because manufacturers are more sensitive to increased raw material prices. The AC Pipes representatives indicated that, if volume is significantly depressed, revenues will be insufficient to cover overhead costs and, if the situation is extended, the Klipriver factory will have to close"

15.2.3 Preventing Job Losses

This study noted "preventing job loss is an important consideration in the transition to substitutes". In this regard, the report noted that:

- "Everite reports that their conversion to Nutec was too expensive and too sudden to allow the conversion of both major facilities, resulting in the closing of one, Brackenfell, and the retrenchment of approximately 400 workers"
- "At Insulectric, the manufacturing workforce has been reduced from 20 to 6 because of the inability of the company to respond quickly to market changes. Insulectric representatives said that if a ban on chrysotile manufacturing comes before the company realises commercial production of its new insulation board, they would likely cease operation"
- "Klinger expressed a similar concern. They assert that a ban on domestic chrysotile manufacturing would cause half of the market to begin importing asbestos-containing materials, necessitating the elimination of half of Klinger's 225 workers"

In their opinion, the authors of this report believe that: "it is important to point out that the framing of the substitution issue by industry as jobs-versus-safety has prolonged the development and conversion to substitutes since the hazards of asbestos became clear. Markets for asbestos-containing products began to decline in the late 1970s, a trend that could not have gone unnoticed by the European owners and licensors of South African manufacturers. Despite the technical difficulties companies faced, 20 years of preparation should have been sufficient to prevent the closures of major facilities and the current crisis of abrupt transition".

From its interviews, this report identified a number of possible factors that might reduce the job losses associated with substitution:

- ***Individualised Phase-out Periods for Different Manufacturers***

"Industry reiterates that any ban on asbestos must be phased in, and that the determination of the phased period must include input from manufacturers facing technical obstacles to substitution. If a smaller company requires more time to continue development, an extension may be considered. The companies that can operate without asbestos must complete the provisions without delay.

The prospect of a chrysotile ban is complicated by the possibility that some applications may not have technically adequate substitutes. Some members of the European Union banned the use of all forms of asbestos in 1997, but have since

issued exemptions for certain specific applications because manufacturers could not find substitutes that performed as well as asbestos¹⁰⁰

- ***Labour and Management Communication and Participation***

"The determination of the phase-out period should, as a basic principle, also include input from trade unions. The unions and management should discuss together a feasible target date for the substitution to be completed. This target date would be backed up by the threat of a government-imposed ban on asbestos use even if substitute development were not fully achieved. If research problems arise and management feels that it will not finish development of the substitute before the target date, an extension of the target date may be possible through negotiation with the unions. Another aspect of the transition would be the employment of an independent consultant who had experience in overseeing such industrial transitions. The reputation of this outside party would reassure the unions that obstacles have been reported in good faith.

While these are the conditions trade unions would like to see, it is unclear how such a model would be accepted by industry. COSATU would continue to pressure for a ban on all forms of asbestos, and it is likely that many aspects of the transition plan just described would be a part of the suggested policy"

- ***Possible Ban on Importation of Chrysotile Products***

"Another policy that might be considered is to phase-in a ban on the import of asbestos-containing materials. This ban would help protect companies like Klinger and Everite, large portions of whose markets would purchase foreign manufactured asbestos-containing products rather than use more expensive asbestos-free ones. Additionally, because it has been established that there are risks to downstream users of asbestos products, a ban on importation must accompany a ban on manufacturing for complete protection of South Africans.

One political issue regarding a ban is the "free-trade" rules imposed by the World Trade Organisation. However, in an application brought by Canada, the WTO has ruled in favour of France's ban"

- ***Job Protection and the Amended Asbestos Regulations***

"A further avenue for job protection is the implementation of the Amended Asbestos Regulations. Experience in countries where asbestos was banned suggests that companies experienced with asbestos control measures can inevitably branch out into areas such as risk assessment for asbestos, control of asbestos-in-place as well as waste disposal. These possibilities should be researched to prevent job losses"

15.2.4 Study Recommendations

In its conclusion, this report makes the following recommendations that are of significance to this current asbestos phasing-out study :

- ***Ban the manufacture and importation of chrysotile-containing products***
- ***Further integration of the occupational health and safety regulation body is still needed to increase the efficiency of inter-departmental collaboration and expertise transfer***
- ***Maintain health and improved surveillance and industrial hygiene measures already in-place***

- *Consider innovative ways of job protection by using the experience of asbestos-user companies to move into asbestos risk assessment, adequate control of asbestos-in-place and effective disposal of waste products*
- *Encourage continued openness between industry and labour and facilitate democratic involvement in issues of concern to workers*

15.3 CONTROLLED USE VERSUS BANNING - THE INTERNATIONAL PRECEDENT

Various Governments and industry bodies have introduced regulatory measures requiring safety controls throughout the asbestos product life cycle to limit asbestos exposure to the general public and workers. In response to public opinion, governments in some countries have introduced extensive product prohibitions, retaining only products for which there are no suitable substitutes. In Europe, ten countries have chosen this path, among them France, Germany, Austria, Switzerland, Italy as well as the Scandinavian countries. In these countries, which include some of the heaviest users of sprayed insulation and amphibole fibres, asbestos represents one of the major causes of industrial disease.

Because asbestos-related diseases have a long latency period, cases linked to past exposure will continue to accumulate for the next fifteen years or so, mainly in cold-weather countries where these materials were used extensively. It will take another fifteen years beyond that before we begin to see the benefits of modern chrysotile control measures and the ban on amphiboles and friable products that were introduced in the 1970s¹⁰¹.

15.3.1 Controlled-Use Programmes

The chrysotile asbestos mining and asbestos using industries have proposed the principle of "Controlled-Use" as an appropriate response to the health hazards presented by this material¹. Companies pursuing Controlled-Use and Product Stewardship programmes argue that they are acting responsibly by ensuring safe practices at the workplace and educating downstream customer and end-users. They believe that Controlled Use can be exercised throughout the product life cycle, including: installation, repair, maintenance and removal, and waste disposal.

Their position is that "controlled use technology for the chrysotile asbestos industries is well developed and readily available. However, in order to build trust and confidence amongst the public and workers, industry must demonstrate that the controlled technology is in-place, and that all regulatory requirements are being met. Transparency is the key. Factory doors must be open to regulatory authorities and public interest groups".

15.3.2 Removing the "Installed Base" of Asbestos-Containing Products in all Buildings

After World War II, construction sites routinely used asbestos-based insulation products, which were sprayed on. The asbestos fibres (chrysotile, crocidolite and amosite), amalgamated with a liquefied binding agent, were applied directly on site, and sprayed onto walls, support beams and pipes. These applications were very popular because they protected against fire and afforded good thermal and acoustic insulation. They were used extensively in colder climates, to insulate commercial and administrative buildings, as well as factories and shipyards. For cost and technical reasons, builders often chose amphibole asbestos-based materials to insulate pipes and boilers.

The alarming statistics on asbestos-related diseases and the poor management of friable asbestos products in buildings have attracted widespread attention.

Starting in the 1970s, countries gradually banned the use of amphibole and sprayed-on friable insulation because of the high risks to workers.

However, The friable asbestos installed in buildings is still a potential hazard and can endanger the health of maintenance and repair workers if they do not follow appropriate work practices.

Asbestos removal is a very costly operation that must be conducted by specialised contractors. Hasty elimination of asbestos insulation considerably increases the probability that controls will not be adequately enforced, thus presenting a source of risk not only for the workers, but for building occupants as well. Moreover, removal can create a new danger.

Numerous studies of buildings containing friable asbestos insulation materials demonstrate that air-borne dust levels within these buildings are not significantly different than in outside ambient (0.1 to 1 fibres/litre). As a result, the U.S. Environmental Protection Agency (EPA) and the government authorities of several countries have therefore concluded that if in good condition, these materials do not pose a health problem to the occupants.

However, management programmes, which would include inspections and corrective measures whenever necessary, are recommended for buildings containing asbestos insulation materials. Moreover, all maintenance workers must have access to adequate safety equipment and benefit from training and information programs to ensure correct work practices are followed when handling these materials. Removal of asbestos insulation should be considered a measure of last resort, and undertaken only when the material is beyond repair or at the time of major renovation work or building demolition.

In 1991, the American Health Effects Institute-Asbestos Research (HEI-AR) concluded that, in buildings that are routinely maintained, asbestos insulation does not appear to affect the health of occupants. There is insufficient proof to justify the systematic removal of intact materials. The Institute arrived at this conclusion after years of research ordered by the US Congress and conducted by independent scientific and technical experts. According to their measurements, the level of asbestos fibres in the air of buildings is about 0.00027 f/cc, not significantly different than the levels normally found in ambient air, and thousands of times lower than today's regulated occupational exposure levels.

In its guidelines for managing buildings containing asbestos materials, the EPA endorses the following principles:

- The risk of asbestos-related disease depends upon exposure to airborne asbestos fibres.
- Based upon available data, the average airborne asbestos levels in buildings seem to be very low. Accordingly, the health risk to most building occupants also appears to be very low.
- Removal is often not a building owner's best course of action to reduce asbestos exposure. In fact, an improper removal can create a dangerous situation where none previously existed.
- EPA only requires asbestos removal in order to prevent significant public exposure to airborne asbestos fibres during building demolition or renovation activities.
- EPA does recommend a pro-active, in-place management program whenever asbestos-containing material is discovered.

15.3.3 A Total Ban on the Use of Asbestos

The US EPA did try to ban most uses of asbestos. However, upon review by the US Court of Appeals, it was found that banning asbestos would do more harm than good.

The Court found EPA's support for a ban deficient in several major ways:

- Firstly, the EPA failed to explore less burdensome alternatives to a ban. More specifically, it virtually ignored the feasibility of a controlled-use approach
- Secondly, the Court criticized the EPA for ignoring the enormous costs of a ban. For example, the EPA argued that a ban of asbestos-cement pipe could hypothetically save about three lives over the next thirteen years, at a cost of between \$128 to \$227 million or \$43 to \$76 million per life saved; a price tag even the EPA admitted was high. The Court noted that the extremely high costs of banning asbestos in relation to the trivial benefits was unreasonable in comparison to other "less burdensome" regulatory options
- Thirdly, the EPA failed to consider whether adequate substitutes were available for banned asbestos products; and if there were substitutes, it did not demonstrate that these were necessarily safer than asbestos.

Clearly, the EPA had not done its homework, and for this, the Court reprimanded it severely. In fact, the Court concluded that a ban of asbestos "may actually increase the risk of injury Americans face". For all of these and other reasons, the Court of Appeals ruled that the ban should be vacated in its entirety.

The French Académie Nationale de Médecine concluded that, although the public might view this favourably, a total ban on asbestos would change nothing. In the Académie's analysis, a ban would not resolve the problems caused by the material's presence. Indeed, it is likely that a ban would sustain the mistaken impression that all asbestos-related problems had been solved, resulting in carelessness during renovation or demolition.

In conclusion, the international experience indicates that:

- To protect workers, it is essential that dust emissions be controlled at all stages of the product lifecycle: from extraction to product manufacturing, work on construction sites and even waste disposal. By applying these control measures, exposures can be kept at levels that present no detectable risks to the workers.
- Removing all in-place asbestos would serve no purpose: hastily made decisions regarding removal could well create a real public health problem at an unjustifiable cost. Management programs for buildings insulated with asbestos must be developed on a priority basis and applied to protect maintenance and removal workers and the public.
- Banning modern asbestos products, like chrysotile-cement, does nothing to solve exposure problems related to the presence of old insulation materials in buildings.