

Appendix A

Asbestos-Related Diseases

Exposure to asbestos has been linked predominantly to three deadly diseases, characterized by extended latency periods:

Asbestosis results from the inhalation of asbestos fibers, usually over an extended period. It is an irreversible lung condition that progresses even after exposure to asbestos ceases. In cases of asbestosis, scar tissue stiffens and distorts the lungs, making breathing progressively more difficult; as the blood supply to the lungs becomes impaired, the heart is put under strain by the reduced efficiency of the lungs. The thickening of the alveoli (air sacs) caused by the action of the asbestos fibers reduces the uptake of oxygen and the discharge of carbon dioxide.

The higher the exposure, the greater the chances of developing asbestosis and the shorter the time it takes to develop. Asbestosis tends to be linked to heavy occupational exposure although cases of asbestosis among those not occupationally exposed, such as residents who lived near asbestos-using factories, have been known.

Malignant mesothelioma, once considered to be a rare tumor, has become increasingly more common. It is a cancer that usually arises on the outer surface of the lung (pleura), but can also occur in the lining of the abdominal cavity (peritoneum) and on rare occasions elsewhere.

There is a consensus that the commonest causal agent of mesothelioma is asbestos. Mesothelioma may occur in the absence of asbestosis and is associated with relatively low exposures to asbestos. It accounts for the majority of victims who contract an asbestos-related disease through environmental exposure and is a notoriously aggressive disease with no known cure.

Asbestos-related lung cancer

(bronchial carcinoma) can occur from occupational or environmental asbestos exposure; it is the predominant malignancy contracted by the asbestos-exposed. There is a powerful synergistic interaction between asbestos exposure and cigarette smoking in the induction of this condition. Compared to the lung cancer risk for a non-smoker with no occupational asbestos exposure, the risk for an asbestos worker who did not smoke is 5 times, for a smoker with no asbestos exposure it is 10 times, and for a smoker who worked with asbestos it is 55 times as great.

Appendix B

Production, Imports and Consumption of Asbestos in India, 1920-2006 (tonnes)¹

Year	Domestic Production	Imports	Consumption
1920	1,847		1,847
1930	34		34
1940	297	5,257	5,554
1950	211	10,957	11,160 ²
1960	1,711	21,967	23,652
1970	10,056	39,766	49,792
1975	20,312	41,514	61,826
1980	33,716	63,176	96,892
1985	29,450	78,075	107,525
1990	26,053	93,165	118,964
1995	23,844	91,909	115,739
1996	27,180	84,378	111,283
1997	25,537	83,356	108,611
1998	20,000	109,036	128,688
1999	21,000	115,220	136,048
2000	21,000	124,433	145,030
2001	21,000	130,291	150,161
2002	18,000	150,461	168,292
2003	19,000	175,581	192,033
2004	18,000	172,397	190,020
2005	19,000	236,494	255,205
2006	20,000	253,382 ³	272,856
Total	3,577,248	2,080,815	4,490,556

for over 60 years, locally sourced asbestos has failed to meet national demands; since the 1940s, India has been amongst the top 4 asbestos consumers in Asia; since 1998, it has been the 2nd largest consumer (after China) in Asia; from 1970 to 2006, consumption increased nearly 5-fold; from 1998, annual consumption in India has increased, on average, by 9%, with the biggest increases, 14% and 34%, taking place in 2003 and 2005 respectively.

- 1 Data sourced from the United States Geological Survey (U.S.G.S.).
- 2 Asbestos exports from India are as follows: 1950: 8 tonnes (t), 1960: 26t, 1970: 30t, 1990: 254t, 1995: 14t, 1996: 275t, 1997: 282t, 1998: 348t, 1999: 172t, 2000: 403t, 2001: 1,129t, 2002: 169t, 2003: 2,548t, 2004: 377t, 2005: 288t, 2006: 526t = total 6,849t.
- 3 According to UN trade statistics, total chrysotile imports to India in 2006 were 306,427 tonnes, 21% higher than the U.S.G.S. figure.



Appendix C

Consumption of Asbestos in India, 1960-2006 (tonnes)⁴

Year	Consumption
1960	23,652
1961	26,266
1962	28,880
1963	31,494
1964	34,108
1965	36,722
1966	39,336
1967	41,950
1968	44,564
1969	47,178
1970	49,792
1971	52,199
1972	54,606
1973	57,012
1974	59,419
1975	61,826
1976	68,839
1977	75,852
1978	82,866
1979	89,879
1980	96,892
1981	99,019
1982	101,145
1983	103,272
1984	105,398
1985	107,525
1986	109,651
1987	111,778
1988	113,904
1989	116,030
1990	118,156
1991	120,282
1992	122,408
1993	124,534
1994	126,660
1995	128,786
1996	130,912
1997	133,038
1998	135,164
1999	137,290
2000	139,416
2001	141,542
2002	143,668
2003	145,794
2004	147,920
2005	150,046
2006	152,172
Total	6,692,944

- 4 Data sourced from the United States Geological Survey (U.S.G.S.) for the years 1960, 1970, 1980, 1990 and 1995-2006; figures for other years (before 1995) were estimated by assuming linear growth between the decadal values.

Appendix D

National Asbestos Bans and Restrictions⁵

Argentina
Australia
Austria
Belgium
Bulgaria
Chile
Croatia⁶
Cyprus
Czech Republic
Denmark
Egypt
Estonia
Finland
France
Gabon
Germany
Greece
Honduras
Hungary
Iceland
Ireland
Italy
Japan
Jordan
Korea⁷
Kuwait
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway
Poland
Portugal
Saudi Arabia
Seychelles
Slovakia
Slovenia
South Africa
Spain
Sweden
Switzerland
United Kingdom
Uruguay

- 5 Exemptions for minor uses are permitted in some countries.
- 6 Croatia banned asbestos as of January 1, 2006. Six weeks later, the Ministry of Economy, under political and commercial pressure, forced the Ministry of Health to reverse its position with the result that the manufacture of asbestos-containing products for export was permitted again.
- 7 In February 2007, the Korean Labor Ministry announced that a national asbestos ban will take effect in 2009.

Appendix E

Useful Contacts

The International Ban Asbestos Secretariat, UK
website: <http://www.ibasecretariat.org>

The Building and Woodworkers International, Switzerland
website:
<http://www.bwint.org>

The International Metalworkers' Federation, Switzerland
website: <http://www.imfmetal.org>

The Asia Monitor Resource Centre, Hong Kong
website: <http://www.amrc.org.hk/>

The Asian Network for the Rights of Occupational Accident Victims
website: <http://www.anroav.org/>

Corporate Accountability Desk-The Other Media, India
contact: Madhumita Dutta,
email:
madhu.dutta@gmail.com

Ban Asbestos Network of India
contact: Gopal Krishna,
email:
krishnagreen@gmail.com

The Peoples Training and Research Centre, Baroda, India
Contact: Jagdish Patel,
email: jagdish.jb@gmail.com

Appendix F

Letter from Tata Memorial Hospital

	<p>TATA MEMORIAL CENTRE टाटा स्मारक केन्द्र TATA MEMORIAL HOSPITAL टाटा स्मारक अस्पताल</p>	<p>AA No 229498</p>
<p>12.06.2008</p>		
<p>Mr Prahlad Malvadkar A/3, Shramik Vasahat Hill Road, Kajupada Borivali (E) Mumbai - 400 066.</p>		
<p>Subject: Information under Right to Information Act 2005.</p>		
<p>Dear Sir,</p>		
<p>This is with reference to your letter dated 14th May 2008 asking information for the following:</p>		
<p>Q.1</p>	<p>Has Tata Memorial Hospital diagnosed and treated cases of Mesothelioma and lung cancer cases in last 40 years?</p>	
<p>A.1</p>	<p>Yes. Mesothelioma cases have been diagnosed and treated at Tata Memorial Hospital.</p>	
<p>Q.2</p>	<p>Details of all cases of Mesothelioma of Pleura and Peritoneum.</p>	
<p>A.2</p>	<p>Total 107 cases have been diagnosed as Mesothelioma since 1985 the details of which are enclosed.</p>	
<p>We do not have any history of these patients about their Asbestos exposure.</p>		
<p>TMH does not issue any certificate to patients about the causes for their disease.</p>		
<p>Thanking you,</p>		
<p>Yours sincerely,</p>		
		
<p>T. Anbumani Public Information Officer & Chief Administrative Officer</p>		
<p><small>Dr. E. Borges Mang. Patel Mumbai - 400 012, India Phone : 022-2417 7000 Fax : 022-2414 8507</small></p>		
<p><small>E-mail : medinal@tmcnet.in Website : http://tmh.gov.in</small></p>		
<p><small>डॉ. ई. बोरगेस मंग. पटेल मुंबई - ४०० ०१२, भारत फोन : ०२२-२४१७७००० फैक्स : ०२२-२४१४८५०</small></p>		
<p><small>www.tmcnet.in</small></p>		

