



"Asbestos Litigation Reform" Reconsidered

This website provides the most thorough review to date of the size and scope of the public health tragedy caused by asbestos in the United States. For the first time ever, it provides the public with new, localized information on asbestos-related diseases, deaths, and contamination sources. This original research is combined with a detailed list of products that expose the public to asbestos, a review of the failed 1989 attempt by EPA to ban asbestos, and an analysis of businesses with the most deaths from the signature asbestos cancer, mesothelioma. It also includes a discussion of asbestos diseases and how even short-term exposures can produce tragic outcomes.

The site takes the visitor behind closed doors at asbestos companies and their insurers via internal documents showing that company after company was willing to let workers suffer and die long after it was clear that asbestos was killing them. It is precisely the callous behavior evidenced by these documents that is at the core of all asbestos litigation. This fact, however, has been largely buried beneath claims that the litigation has "bankrupted" dozens of large U.S. companies.

The companies, it turns out, have a much different take on these bankruptcies, calling them "good news" (Halliburton), with "little impact on day-to-day operations" (Babcock and Wilcox).

As the Senate prepares to consider a sweeping, high-stakes bailout plan for asbestos companies and their insurers, the data and documents presented here should remind decision-makers that asbestos is a public health epidemic first and foremost.

When viewed through the prism of public health, two clear principles emerge that should guide the current debate:

1. Any solution to the asbestos epidemic, be it litigation, a trust fund, or a combination of the two, must help everyone hurt by asbestos. The current proposal by Senators Frist and Hatch does not come close to this goal.
2. All uses of asbestos must be banned immediately. This is the only way to put an end to the ongoing tragedy of asbestos illness and death.

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Section 1:**Deaths from Asbestos-related diseases**

Disease	Number of deaths per year
Mesothelioma ¹	2,509
Asbestosis ²	1,398
Lung Cancer ³	4,800
Gastro-intestinal cancer ⁴	1,200
Total	9,907

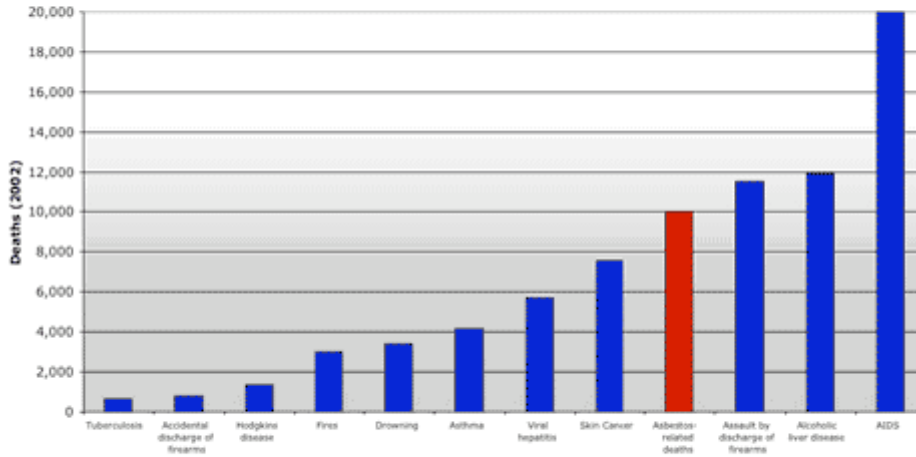
[Footnotes](#)

The Asbestos Epidemic in America

The highly politicized controversy in Washington over asbestos litigation has overshadowed a quiet and directly related crisis in public health: an epidemic of asbestos-caused diseases in the United States that claims the life of one out of every 125 American men who die over the age of 50.

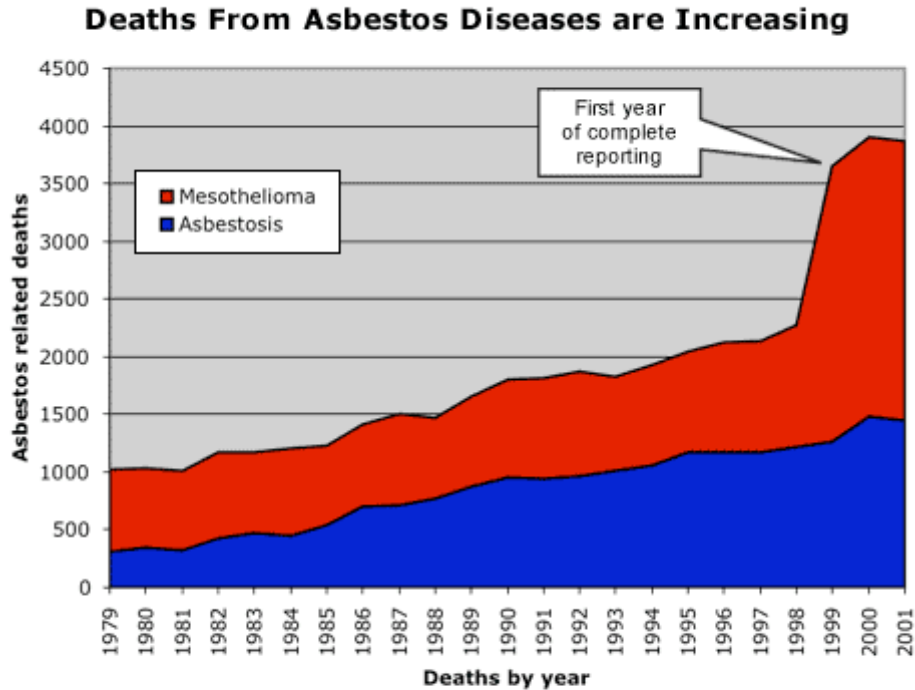
Ten thousand Americans die each year -- a rate approaching 30 deaths per day -- from diseases caused by asbestos, according to a detailed analysis of government mortality records and epidemiological studies by the EWG Action Fund. Asbestos kills thousands more people than skin cancer each year, and nearly the number that are slain in assaults with firearms. The suite of diseases linked to asbestos exposure overwhelmingly affect older men.

Asbestos-related deaths are at an epidemic scale in the United States



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Even more disturbing, deaths from asbestos in the United States appear to be increasing. Mesothelioma and asbestosis mortality rose steadily from 1979 through 1998. Asbestosis mortality, however, rose at more than three times the rate of mesothelioma, at 7.8 percent per year, compared to 2.3 percent annually for mesothelioma over the 24-year period 1979-2001.



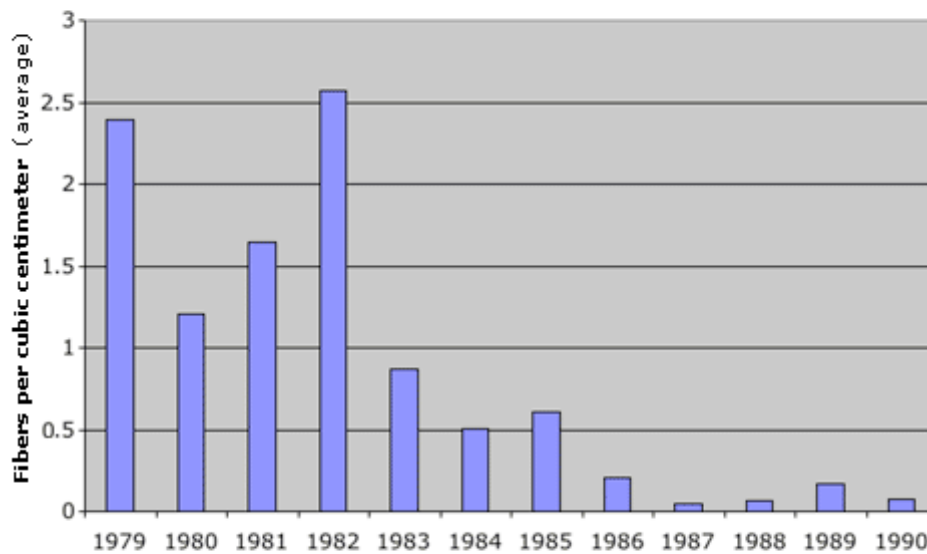
Source: EWG Action Fund. Compiled from Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), multiple cause of death file 1979-2001. Does not include asbestos-caused mortality from lung or gastrointestinal cancer.

As in the United Kingdom (Treasure 2004) and Australia (Leigh 2003), there are many reasons to believe that the peak of the U.S. asbestos disease epidemic may not be reached for a decade or more.

Asbestos use and exposure crested in the United States in the mid 1970s when a number of factors converged: more than 3,000 consumer and industrial products on the market at that time contained asbestos; asbestos product factories were polluting nearby neighborhoods; asbestos workers were heavily exposed on the job and were bringing home substantial amounts of asbestos dust to their wives and children; and asbestos was commonly used in public buildings and workplaces for soundproofing, fireproofing, and insulation. Meaningful workplace safeguards were not in place until at least 1980, and for many industries, such as construction, levels in excess of the pre-1980 standard persist even today (NIOSH 2002).

Asbestos diseases have a 20 to 50 year latency period, meaning that a substantial portion of individuals exposed in the 1960s and 1970s are just now showing up as disease or mortality statistics. Better tracking accounts for the dramatic increase in mesothelioma mortality reported in 1999, but lung cancer deaths from asbestos are not reported at all, and asbestosis is still dramatically underreported even in worker populations where asbestos exposure is well established (Markowitz 1997). And asbestos has not been banned. It remains heavily used in brake shoes and other products, directly exposing auto mechanics and others who work with the materials, and indirectly exposing consumers and workers' families. In addition, millions of people are exposed at home or in their workplace by the monumental quantities of asbestos that remain in the built environment -- the attic insulation in 30 million American homes, for instance -- following decades of heavy use.

Asbestos exposures remained high through the early 1980s



Source: EWG Action Fund, compiled from Occupational Safety and Health Administration health inspection data (1979 - 1998). Data includes 19,000 samples from 670 industries.

EWG Action Fund projects that over the next decade, four asbestos-related diseases — mesothelioma, asbestosis, lung cancer and gastrointestinal cancer — will claim the lives of over 100,000 Americans. The epidemic is national in scope, affecting every state ([View map](#)). And for every life that asbestos claims, many more will be compromised by an array of serious, if nonfatal, asbestos-caused illnesses.

The EWG Action Fund's projections, while specific to the United States, are consistent with the assessments of other experts who assert the industrialized world is in an epidemic of asbestos-induced cancer that has yet to reach its peak. In January, 2004, an article in the British Medical Journal characterized one form of asbestos-induced cancer, mesothelioma, as an epidemic that is not expected to peak in Britain until 2015 to 2020, when it will claim an estimated 2000 lives per year (Treasure 2004). The authors assert that 100,000 people alive now in the developed world will die of mesothelioma alone. Scientists in Australia expect mesothelioma deaths on that continent to peak in about 2010 and to claim 18,000 lives by 2020 (Leigh 2003). In the United States, mesothelioma accounts for about one quarter of all asbestos fatalities.

The analysis on this site presents the most detailed national and state-level estimates ever presented on the disturbingly -- and surprisingly -- high death toll from just two causes of asbestos fatalities, mesothelioma and asbestosis. The magnitude of this public health crisis raises profound questions about the wisdom and fairness of doing anything to cut off any avenue that might provide assistance or protection to the tens of thousands of Americans who become sick and die from asbestos exposure.

Mounting mesothelioma and asbestosis mortality

To develop our projections, EWG Action Fund researchers began by examining 25 years-worth of U.S. government data on asbestos mortality derived from death certificates. We found that deaths have been increasing steadily for the past 20 years and are still on the rise for the two

asbestos diseases where data are available (see figure 2). Between 1979 and 2001, at least 43,000 Americans died from the signature asbestos cancer, mesothelioma, and an often-fatal non-cancer disease of the lungs called asbestosis. The actual number of deaths from these two diseases could easily be twice as high due to chronic misdiagnoses of both diseases (Markowitz 1997) and the absence of federal tracking for mesothelioma for nearly all of the time period analyzed.

In 2001, almost 1,500 people died with asbestosis listed as the primary or contributing cause of death, a 50 percent increase since 1990 and 340 percent increase since 1980 (NCHS, 2003). Between 1990 and 1999, the National Institute for Occupational Safety and Health estimates that a total of 114,506 years of potential life lost was due to asbestosis (NIOSH, 2002). The estimated number of discharges from non-federal hospitals for asbestosis has also increased dramatically, about four-fold, since 1990 and numbered 20,000 in 1999 (NIOSH 2002).

Mesothelioma was not tracked as a cause of death by federal health officials until 1999. Prior to that time, the National Center for Health Statistics (NCHS) and National Institute for Occupational Safety and Health (NIOSH) tried to estimate the number of deaths due to malignant mesothelioma by using "malignant neoplasm of pleura" (NIOSH) or "malignant neoplasms of the pleura or peritoneum" (NCHS) as surrogate measures because other studies show that a high percentage of these tumors are mesotheliomas. Scientists now know that estimates of mesothelioma based on these surrogate indicators dramatically underestimated the number of deaths due to mesothelioma. The first year that federal officials began tracking mesothelioma as a distinct cause of death, official mortality more than doubled. In 1998, the last year surrogate indicators were used, the estimated number of mesothelioma deaths was 935. One year later, when malignant mesothelioma was specifically coded as a cause of death, the number of deaths was 2,343.

More than 100,000 asbestos deaths in the next decade

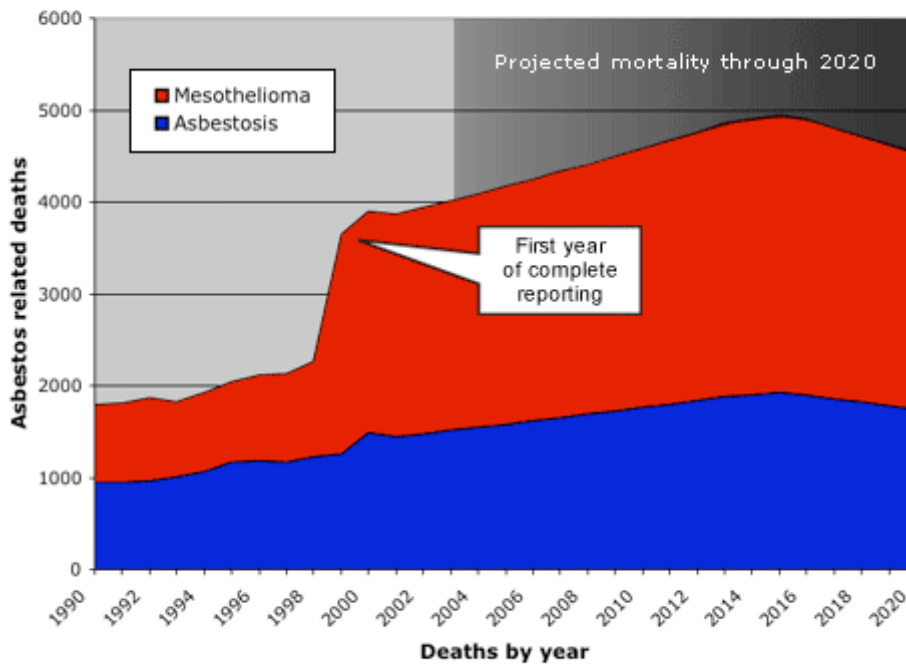
To estimate future mortality we considered two scenarios. The first scenario assumes that mortality rates for mesothelioma and asbestosis will increase at the average rate observed in the 1990s (1990-1998) — a 4.4 percent annual increase for asbestosis and a 3.5 percent annual rate for mesothelioma. The second assumes half the rate of increase during that time.

Asbestos cancers and the fatal forms of asbestosis have a 20 to 50 year latency period, with the majority occurring at least 30 years after initial exposure. Exposure to asbestos peaked in about 1975 or 1980. Extrapolating out from this peak exposure period, one would expect asbestos mortality to crest sometime in the next 20 years.

If the increase in mortality that occurred in the 1990s continues for the next ten years there will be 3,776 deaths from mesothelioma and 2,536 deaths from asbestosis reported to the federal government in 2014. This rate of increase would produce 6,312 deaths annually for the two diseases one decade from now, up from 3,864 reported by the government in 2001. Overall, a mortality increase at this rate over the next decade would yield 22,000 deaths from asbestosis and 35,000 deaths from mesothelioma.

The second scenario [see graph below] assumes a growth rate in asbestosis and mesothelioma mortality of half the 1990-1998 rate. Projecting this growth rate over the next ten years we estimate 44,600 deaths from asbestosis and mesothelioma from 2004 through 2013, with 1,922 asbestosis deaths and 3,025 mesothelioma fatalities in 2014.

Asbestos mortality will likely peak around 2015 reflecting heavy exposures in the 1970s



Mortality projections for these two diseases are fraught with complexities, and above all are creatures of the underlying assumptions. But the available data on asbestos mortality and use do not indicate that we have reached the peak incidence. The widely varying latency periods for disease onset, sometimes more than 50 years after exposure, make it impossible to know when the cohorts of people—mostly working men—who were exposed in the 1960's, 70s and 80s might develop mesothelioma or asbestosis. Also, because so many exposures continue in unregulated, unmonitored settings, either on the job or in homes, schools or workplaces, no one can be sure when asbestos contamination will taper off, reducing death rates in succeeding decades.

The fact that these two signature asbestos-caused diseases could easily kill 60,000 Americans, 80 percent of them men, over the coming decade is ample cause for strong public health measures, including medical and financial assistance for those stricken and their families. The threat from other deadly asbestos-caused cancers only raises the stakes.

Asbestos and other forms of cancer

Though there is no debate about whether asbestos causes lung cancer, other confounding causes of the disease make it impossible to identify the exact number of asbestos-caused lung cancer illnesses and deaths. The best estimates for asbestos-caused lung cancer deaths over the past two decades range from 5,000 to 10,000 per year (AIA 1980, Nicholson 1982), accounting for between 100,000 and 200,000 fatalities during that time.

Asbestos has been determined to cause gastro-intestinal cancer by the Occupational Safety and Health Administration (OSHA 1994), and the World Health Organization International Agency for Research on Cancer (WHO 1989). According to the OSHA medical surveillance guidelines for asbestos exposure: "These studies have shown a definite association between exposure to asbestos and an increased incidence of lung cancer, pleural and peritoneal mesothelioma, gastrointestinal cancer, and asbestosis" (OSHA 1994). Estimates vary for the

number of asbestos-caused GI cancers annually. The best national estimates average about 1,200 asbestos-caused gastro-intestinal cancers per year (Nicholson 1982, Lilienfeld 1988).

When deaths from these four diseases are combined, EWG Action Fund estimates that asbestos is killing at least 10,000 Americans a year, and will cause the deaths of at least 100,000 Americans over the next decade. At least that number will die during subsequent decades, even if remaining uses of asbestos were banned immediately. And a greater number than that will be disabled by asbestos as asbestosis slowly progresses through their lungs, scarring more and more tissue, making it increasingly impossible for them to breathe.

Experts testifying before the United States Senate in the summer of 2003 predicted between 43,000 to 70,000 mesothelioma deaths over the 27 year life of the proposed federal asbestos trust fund, as well as up to 240,000 total cancer cases, and up to 1.6 million compensated non-cancer claims (Peterson, 2003). By any measure the magnitude of future asbestos death and injury is enormous.

Unsafe exposures persist today

The ongoing increase in asbestos mortality is due largely to the fact that asbestos-caused cancers and other diseases take at least twenty years and often fifty years or more after initial exposure to appear. Massive asbestos exposures from the 1960s through the 1980s are just beginning to show up as mortality statistics today. Asbestos will continue to cause diseases and death as long as it is used.

Even in workplaces where asbestos is regulated, hazardous conditions persist. In 1994, OSHA adopted tighter workplace exposure limits for asbestos (0.1 fibers/cc or 0.1 fibers/ml), fourteen years after they were recommended by NIOSH (NIOSH 2002). The mere existence of this standard, however, has not translated into safe working conditions for men and women in trades with significant asbestos exposure, such as construction, manufacturing, and mining.

In 1999, asbestos air levels exceeded the far weaker pre-1980 "permissible exposure limit" at 13 percent of construction and 5.6 percent of manufacturing sites monitored (NIOSH 2002). This pre-1980 limit, which was established by the Mine Safety and Health Administration (MSHA) and still applies to mining, is 20 times less protective than the 1994 OSHA standard (0.1f/cc vs. 2 f/cc). Between 19 and 91 percent of all mining sites sampled between 1982 and 1991 exceeded the 1994 OSHA standard. In 1991, 32.4 percent of mining sites sampled exceeded this level.

Even full compliance with the OSHA standard does not mean that workers will not die from asbestos caused cancer and other diseases. The preamble to the OSHA standard itself estimates that one in every 300 workers will develop lung cancer from exposure at the legal limit (OSHA 1986). A more recent assessment concludes that one in every 200 workers will develop lung cancer if they are exposed to a career's worth of asbestos at the OSHA "safe" level. One in 500 will develop asbestosis under a similar exposure scenario (Stayner 1997). The federal government estimates that 1.3 million Americans currently are exposed to asbestos on the job (OSHA 2004).

Asbestos mortality by state

California, Florida, New York, Pennsylvania, and Texas totaled the most asbestosis and mesothelioma fatalities from 1979 through 2001, at between 3,800 and 5,900 deaths each. In nine of the top ten states, the number of combined mesothelioma and asbestosis fatalities is increasing every year. Seventeen states had more than 1,000 asbestos fatalities from these two diseases during these years, and no states reported zero deaths. Only two states, Wyoming and Alaska, had less than 100 deaths from asbestosis and mesothelioma during the 23 year period where data are available.

LINK: [View maps with state and county mortality data.](#)

Asbestos mortality by county

The top counties for reported asbestos mortality from mesothelioma and asbestosis are Los Angeles County, California; Cook County, Illinois; Philadelphia County, Pennsylvania; King County, Washington; and Harris County, Texas. These counties had from 400 to 1,200 deaths from these two diseases during the time period analyzed.

Several counties stand out with a high number of asbestos-related fatalities, while their states ranked lower overall. Massachusetts, Michigan, Maryland, and Arizona were not in the top ten states for asbestos mortality, but four counties within these states (Wayne County, Michigan; Middlesex County, Massachusetts; Baltimore County, Maryland; and Maricopa County, Arizona), ranked in the top 20 out of more than 2,000 counties reporting asbestos mortalities.

LINK: [View maps with state and county mortality data.](#)

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Notes from Table

¹ Mesothelioma reported as the cause or contributor to death on death certificates, average 1999 through 2001. Assumes 100 percent of mesothelioma deaths are accurately identified and reported. Centers for Disease Control, National Center for Health Statistics, Multiple Cause of Death Files, 1999-2001.

² Asbestosis reported as a cause or contributor to death on death certificates, average 1999-2001. Some experts estimate that 50 percent of asbestosis mortality is misdiagnosed and not reported (Markowitz 1997). Centers for Disease Control, National Center for Health Statistics, Multiple Cause of Death Files, 1999-2001.

³ Lung Cancer (Nicholson 1982). Assumes zero non-occupational lung cancer deaths from asbestos exposure in the home or environment.

⁴ Gastro-intestinal cancer ([OSHA 1994](#)), ([WHO 1989](#)), (Lilienfeld 1988), (Nicholson 1982).

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Section 2:

When Bankruptcy Means "Business as Usual"

Just as the ongoing epidemic of asbestos-caused mortality and injury has been overshadowed by the controversy over litigation, the origins of asbestos lawsuits have been buried beneath claims that litigation has "bankrupted" dozens of large U.S. companies, and that Congress must put an end to asbestos litigation in order to protect more companies from going bankrupt in the future.

But neither the flood of asbestos lawsuits, nor contemporary proposals to end it, should have been necessary at all. The controversy could have been avoided if the very same companies now pressing for "asbestos litigation reform" had acted responsibly and compassionately decades ago, when their highly detailed, proprietary knowledge showed that asbestos posed mortal risks to millions of their workers, and to tens of millions of Americans who came in contact with the deadly substance in their homes, schools and workplaces.

Instead of fair and respectful consideration for their workers and others, asbestos and insurance companies offered only cold, unrelenting resistance. The companies aggressively fought requests for financial or medical aid and support; they callously, and notoriously, hid unambiguous scientific evidence of asbestos exposure, injury and death. Indeed, no meaningful proposals for help of any kind were forthcoming from asbestos industries and their insurers until a handful of people, out of hundreds of thousands whose lives had been destroyed by asbestos illnesses and death, went to court seeking justice because they had no other choice -- and began to win.

Proponents of congressional action to block asbestos lawsuits now argue that this litigation must be stopped because it is "bankrupting" asbestos companies, their insurers, and by some accounts, the entire U.S. economy. Political speeches, and many media accounts, routinely refer to companies that are "bankrupt" as a result of asbestos litigation. As this section explains, "bankruptcy" connotes a degree of business distress that is rarely experienced by companies that have been sued by people with asbestos-related health problems.

According to Halliburton, it's "business as usual" as a result of their asbestos bankruptcy:

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Q. In Europe and many other countries, when a company is "bankrupt," it means that it is going out of business. What is different here?

A. European bankruptcy laws, as in many countries, are very different from the laws in the U.S. Chapter 11 has been created so that a filing company can restructure its debt (or in our case resolve its asbestos and silica liability) and remain in business. It is not a liquidation; it is a reorganization.

Halliburton and all of its subsidiaries, including DII Industries and KBR, will continue in business and will continue to provide all the excellent services our customers expect from us. The Chapter 11 petitions have been filed for the sole purpose of facilitating a settlement of Halliburton's personal injury asbestos and silica litigation claims. In other words, outside of the asbestos and silica settlement, it will be business as usual.

From www.halliburton.com/ir/asbestos_faqs.jsp

When most people hear that a company is going bankrupt, they think liquidation of assets,

massive layoffs, and shutting down the business. With asbestos bankruptcies this is the very rare exception. Most "bankrupt" asbestos companies, especially the larger corporations typically offered as examples of asbestos-induced economic havoc, remain very competitive within their industries during bankruptcy, and often flourish afterwards.

This is because an asbestos bankruptcy is a reorganization authorized under Chapter 11 of the bankruptcy code, not a liquidation that occurs under Chapter 7. It is a way to stop ongoing and future litigation, consolidate liability, and protect the company and all of its subsidiaries from future liability. While not painless, it is a relatively smooth and equitable way for a company to assist the families of workers and others injured or killed by asbestos.

The asbestos industry and its supporters use the popular image of bankruptcy to argue that aiding people hurt by asbestos is costing huge numbers of jobs, ravaging the pension plans of innocent workers, and bankrupting the economy.

To quote Senate Majority Leader Bill Frist:

The torrent of asbestos litigation has wreaked havoc on asbestos victims, on American jobs, and this havoc has extended into our economy.

The economic reality of this crisis is not lost on my colleagues in this body. They understand that under the status quo the national asbestos crisis could cause (sic) [cost] our economy more than the savings and loan crisis of the 1980s and 1990s, and more than the Enron debacle or the WorldCom debacle.

Future funds for asbestos victims are threatened because company after company after company is going bankrupt. About 70 companies have gone bankrupt, and about a third of those have gone bankrupt in the last 2 1/2 to 3 years. The pace of bankruptcies of very large companies with thousands and thousands of employees is accelerating.

From [Frist Statement.pdf](#)

A look at websites of "bankrupt" companies reveals a very different assessment of the economic and financial impact of asbestos bankruptcies.

Halliburton calls its asbestos bankruptcy "good news" and a "definite win for people who care about Halliburton." (see www.halliburton.com/ir/asbestos_fags.jsp)

The company certainly does not feel that its \$4.5 billion settlement with asbestos victims represents any threat to the ongoing profitability of the company.

To quote again from their website:

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In a successful implementation of an asbestos settlement under Chapter 11, most aspects of the company's business do not have to change. Under the proposed Plan of Reorganization (sic):

- The company and its subsidiaries do not go out of business.
- Nothing necessarily changes at any business units, whether they are in Chapter 11 proceedings or not, from an operational standpoint.
- No facilities need to close and no jobs need to be eliminated as a result of a Chapter 11 filing.
- No pension or benefits programs are be (sic) reduced or eliminated.

- No employees have their salaries cut, or promotion opportunities restricted.
- No vendors are delayed in payment from normal terms.
- No creditors are delayed in payment from normal schedule.
- No business units outside the U.S. are affected in any way.
- The company does not have to renegotiate contracts as a result of the Chapter 11 filing.

From www.halliburton.com/ir/chapter11_primer.jsp

In 1994, Congress amended the bankruptcy code to provide special protection for companies with asbestos liability. What distinguishes these amendments from traditional Chapter 11 bankruptcy is that they allow companies to seek bankruptcy protection from *future* liability, if they can show that future liability exceeds the assets of the company (Bankruptcy Reform Act of 1994). As a result of these changes, bankruptcy emerged as the preferred option for companies seeking to limit asbestos liabilities. Forty-eight firms filed for bankruptcy due to asbestos claims between 1982 and 1999, and an additional thirty firms filed between 2000 and 2002 (White, 2002, at 1320).

The 1994 amendments are known as the "Manville Amendments," because they were modeled after the core components of the Manville Trust, a legal entity established to settle asbestos claims against a major asbestos company, Johns-Manville. In addition to allowing asbestos companies to settle all future asbestos liability claims by filing Chapter 11 and establishing a special asbestos bankruptcy trust, known as a 524(g) trust, the law also grants courts the power to issue injunctions that prevent all asbestos litigation against the company and its subsidiaries from moving forward, a major benefit to companies with substantial liabilities (Bankruptcy Reform Act of 1994; Macchiarola, 1996, at 617). The amendments also applied retroactively to litigation that was ongoing at the time of passage (Crames, et al., 2002; White, 2002, at 1322).

In practice, Chapter 11 asbestos bankruptcies rarely result in lost jobs or diminished pensions beyond what would be attributable to the normal business cycle. Instead, the Chapter 11 bankruptcy allows a company to receive an "automatic stay," which stops all payments to creditors (including payments owed through settlements), stops all pending lawsuits, and lets the company reorganize and then prioritize payments.

Under the Chapter 11, section 524(g), an asbestos company can stop all of its pending asbestos lawsuits and set up a fund to settle all present and future asbestos claims. This automatic stay provision also extends to parent and subsidiary companies and protects them from future asbestos lawsuits. Because Chapter 11 requires the company to adopt a court-approved reorganization plan, payments on asbestos claims may be delayed as long as five to six years while the plan is developed, approved, and implemented (White, 2002, at 1320).

While any form of bankruptcy is serious, it is clear that asbestos filings under Chapter 11 have not wreaked havoc on the economy. Between February 2000 and October 2001, the seven largest companies facing asbestos liability filed for bankruptcy protection under Chapter 11. These companies include Babcock & Wilcox, Owens Corning, Armstrong, W.R. Grace & Co., U.S. Gypsum Co., Federal-Mogul and Building Materials Corporation of America.

An analysis of 10K filings for these companies for the years 1998 through 2002 concluded that:

"The Chapter 11 companies have been able to continue operations successfully. Indeed, with few exceptions, they have prospered, increasing their sales. They have been able to maintain their assets and employment, meet their obligations to business creditors and employees, and make capital investments that will allow them to continue to prosper." (Benson, 2003, at 5).

A review of the companies' public statements confirms this conclusion. Babcock & Wilcox filed for bankruptcy in 2002. The company explains its decision to file for Chapter 11 protection from asbestos liability as follows:

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When a company files for Chapter 11, it is permitted to continue operating while developing a plan to emerge as a stronger, healthier company. Most people, when they hear "bankruptcy," think "liquidation" (that is, when a company sells off all its assets and inventory and goes out of business). That is a different kind of bankruptcy, called a Chapter 7. Chapter 11 does not mean liquidation.

B&W's core business continues to be strong. B&W filed for protection under Chapter 11 because it offers the only viable legal process for determining and comprehensively resolving its asbestos claims.

B&W's core operating business continues to be a solvent and strong business with a backlog totaling over \$1 billion. [t]here should be little impact on day-to-day operations. It's business as usual. Project work will continue. [w]e expect there will be no effect on salaries, benefits or promotion opportunities.

See www.babcockwilcox.com/pgg/pr/chapter11.html.

Another asbestos manufacturer, Owens-Corning, filed for bankruptcy protection on October 12, 2000 to settle its approximately \$2 billion in asbestos liability. The company had previously paid out or had commitments to pay out \$5 billion. (Asbestos Litigation Reporter, 2002).

Senate Majority leader Frist named Owens-Corning on the floor of the Senate as a company that had been driven to bankruptcy by excessive asbestos litigation and then went on to say that:

"Asbestos-related bankruptcies spell doom for these workers' jobs; thus, their families, and, of course, incomes and retirement savings."

Owens-Corning has a dramatically different take on its Chapter 11 asbestos proceeding:

[View a case study on Owens-Corning](#)

On Thursday, October 5, 2000, Owens Corning voluntarily filed a petition for reorganization under Chapter 11 bankruptcy protection in the United States Bankruptcy Court in Wilmington, Delaware.

The filing will enable the company to refocus on operating its business and serving its customers, while it develops a plan of reorganization that will resolve its asbestos and other liabilities and provide a suitable capital structure for long-term growth.

To enhance its liquidity, Owens Corning has obtained a \$500 million debtor-in-possession financing commitment from Bank of America. Upon court approval, these funds will be available to the company to help meet its future needs and fulfill obligations associated with operating its business, including payment under normal terms to suppliers and vendors for all goods and services that are provided after today's filing. Employees will continue to be paid in the normal manner and their health benefits, as well as those of retirees, will not be disrupted. The company's pension plan for retirees and vested employees is fully funded and protected by federal law.

It is important for our customers and business partners to know that all Owens Corning operations are open and we are continuing to focus on serving our customers. Customer service and daily operations are our top priorities.

See www.owenscorning.com/financialreorganization/.

Owens-Corning's Chairman and CEO, Glen Hiner, assessed the impact of the company's asbestos bankruptcy filing this way:

"[w]ith the Chapter 11 process we can finally put this difficult issue behind us in a fair and responsible manner and move forward with our resources and energies focused on competing successfully in the global marketplace." Cy Goldberg & Daren J. Check, *Bullseye Gets Bigger on Peripheral Defendants: The Effect of Bankruptcies on Asbestos Litigation*, *The Legal Intelligencer* (Apr. 25, 2001).

Clearly these companies have not "gone bankrupt" in the sense commonly imagined by the public and invoked by politicians who are pressing for "asbestos litigation reform." Instead, these asbestos companies have taken advantage of a special provision of Chapter 11 called a 524(g) trust, which was specifically inserted into the tax code by the Congress in 1994 to help asbestos manufacturers shield current assets from present and future asbestos liability (Green Testimony, 2003).

[View a case study on Owens-Corning](#)

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Section 3:**SOMETHING IN THE AIR:
The asbestos document story**

"The documents noted above, however, show corporate knowledge of the dangers associated with exposure to asbestos dating back to 1934. In addition, the plaintiffs' bar will probably take the position — not unreasonably — that the documents are evidence of a corporate conspiracy to prevent asbestos workers from learning that their exposure to asbestos could kill them."

— Memo from a trustee of the Manville Trust, 1988

[\[Excerpt | Full document\]](#)

Nothing proves the culpability of the asbestos manufacturers in the death and injury of asbestos workers quite like internal documents from the companies themselves. These papers, just a handful of which we present here, prove beyond a shadow of a doubt that the companies and their insurers knew the hazards of asbestos and concealed this information from workers for decades. More than any other piece of evidence, it is the companies' own internal papers that have convinced juries of citizens across the country that workers and their families deserve compensation to help them manage the severe and often fatal health consequences of working with asbestos.

Document Gallery

Browse a selection of asbestos industry documents dating from 1948 through 1988.

The current push by defendant industries to establish a national asbestos victims trust fund is driven in large part by the fact that courts consistently find asbestos companies guilty, not just of exposing their workers to a substance — asbestos — that could kill or severely injure them, but of doing this with full knowledge of the fatal consequences of their actions, and of actively concealing this truth from these same workers.

The 1966 comments of the Director of Purchasing for Bendix Corporation, now a part of Honeywell, capture the complete disregard of an industry for its workforce that is expressed over and over again in company documents spanning the past 60 years.

"...if you have enjoyed a good life while working with asbestos products, why not die from it."

— 1966 Bendix Corporation letter [\[view document\]](#)

Sweeping culpability

Proponents of asbestos tort reform argue that companies that "had nothing to do with" asbestos manufacturing are being dragged into court unfairly. The documents presented here, while just a smattering, illuminate the dimensions of what was clearly, and remains today, a sweeping deception of American workers across entire sectors of the economy.

It took more than just Johns Manville and W.R. Grace lying to their workers to produce the ten thousand Americans currently dying each year of asbestos diseases. It took similar behavior at Exxon, Dow (Union Carbide), DuPont, Bendix (now Honeywell), The Travelers, Metropolitan Life, Dresser Industries (now Halliburton), National Gypsum, Owens-Corning, General Electric, Ford, and General Motors, just to name a few. The list is a roll call of major American corporations. What they did to their workers, the public, and their communities, we can only hope will never be repeated.

Early knowledge that asbestos was deadly

Asbestos diseases have been known and documented for over 100 years. During an autopsy in 1900, Dr. H. Montague Murray, a physician in London's Charring Cross Hospital, discovered asbestos fibers in the lungs of a thirty-three-year old woman who had worked fourteen years in an asbestos textile factory and died of severe pulmonary fibrosis, which the doctor linked to his occupation (Brodeur, pg. 11).

In 1924, the first clear case of death due to asbestosis was published in the British Medical Journal. Dr. W.E. Cooke, an English physician who gave the disease its name, reported the results of an autopsy on a thirty-three-year old woman who had worked in an asbestos textile factory for thirteen years. The publication led to years of intensive study of asbestosis in Britain, during which hundreds of asbestos-textile workers were examined. Doctors and scientists found that a quarter of the workers developed pulmonary fibrosis, the condition which Cooke dubbed asbestosis (Brodeur 1985, pg. 13).

In the United States, in 1917, Dr. Henry K. Pancoast, of the University of Pennsylvania School of Medicine, observed lung scarring in the X-rays of fifteen asbestos-factory workers. In 1918, the U.S. Bureau of Labor Statistics published a report by an insurance statistician noting the unusually early deaths of asbestos workers and revealing that it had become common practice for insurers to deny coverage for workers because of the "assumed health-injurious conditions" in the asbestos industry (Hoffman 1918). In 1927, the first workmen's compensation disability claim for asbestosis was upheld by the Massachusetts Industrial Accident Board; and in 1930 the first U.S. case of asbestosis was reported in the journal *Minnesota Medicine* (Brodeur, pg. 14).

By the 1930s, asbestos manufacturers and their insurance companies knew that asbestos was killing workers at alarming rates. In 1934, Aetna insurance company published the Attorney's Textbook of Medicine, which devoted a full chapter to asbestos exposure, noting that asbestosis was "incurable and usually results in total permanent disability followed by death." (Bowker, pg. 18)

In October 1935, the Eastern Underwriter reported on the "alarming increase of asbestos cases" in the United States (Bowker, pg. 18). Beginning in 1931 and throughout the 1930s, the asbestos industry commissioned research to determine the toxicity of various fibrous silicates such as talc and tremolite when inhaled (Michelbacher 1942, pg. 490).

So severe were the hazards of asbestos that by the eve of World War II, asbestos manufacturing was in decline. The war, however, reversed the fortunes of the asbestos industry and launched an era of massive use of asbestos in ships that led to an explosion of asbestos products for the next three decades.

The resulting atrocity has been described and documented in detail by Paul Brodeur, in *Outrageous Misconduct*; Barry Castleman, in *Asbestos: Medical and Legal Aspects*; and more recently by Michael Bowker, in *Fatal Deception*, and Andrew Schneider, in *An Air That Kills*, with a particular focus on the W.R. Grace asbestos mine in Libby, Montana.

"So many embarrassing documents"

We present here a small selection of insurance and manufacturing company documents made public through litigation. These papers reveal a brazen disregard for the men and women who, by the 1960s, were dying by the thousands each year for these businesses, a history of abuse and deception that is unparalleled in American industrial history. In large measure, it is the written words of these company executives that have convinced juries across America that workers and their families deserve full compensation for their suffering.

Both insurers and manufacturers understand the power of these documents. As litigation by asbestos workers began to heat up in the 1980s, industry officials recognized the potential significance of the documents being extracted from the companies by the courts. A 1988 memo written by an asbestos litigation fund trustee lamented that: "there are so many embarrassing documents that people disagree as to which group of any ten documents is the worst." [[Excerpt](#) | [Full document](#)]

As the author notes, more documents were certain to become public during litigation, and the outlook for the companies was bleak:

"The documents noted above, however, show corporate knowledge of the dangers associated with exposure to asbestos dating back to 1934. In addition, the plaintiffs' bar will probably take the position — not unreasonably — that the documents are evidence of a corporate conspiracy to prevent asbestos workers from learning that their exposure to asbestos could kill them. (One employee of Manville, who co-authored a 30-year-old document which is among the group of documents described above, was told by Manville's Chief of Litigation to hire his own lawyer after the document came to light because it was the opinion of the Chief of Litigation that the employee could be indicted for manslaughter.)"

— Memo from a trustee of the Manville Trust, 1988
[[Excerpt](#) | [Full document](#)]

Industry-wide knowledge of the hazards

During the 1950s and 60s, companies were fully aware of the potentially fatal consequences of working with asbestos, including its ability to cause cancer, yet millions of workers were exposed to asbestos on the job with virtually no health protections.

As early as WWII, ASARCO knew that asbestos permanently damaged the lungs leading to a progressive disease called asbestosis, which is sometimes fatal. "We knew very well then that inhalation of excessive asbestos dust over a period of time could cause asbestosis." [[View document](#)]

In a 1949 document, Exxon admitted that asbestos causes lung cancer, silicosis, fibrosis and erythema. This relatively early admission that asbestos causes lung cancer foretold literally hundreds of thousands of deaths from asbestos in subsequent decades, mortality that continues today in the United States at a rate of at least 5,000 deaths per year. In line with the policies of all asbestos users and manufacturers, this information was under the banner: "COMPANY CONFIDENTIAL: Not For Publication In Present Form." [[View document](#)]

National Gypsum was quite explicit about asbestos risks. In a 1958 memo, the company states:

"We know that you will never lose sight of the fact that perhaps the greatest hazard in your plant is with men handling asbestos. Because just as certain as death and taxes is the fact that if you inhale asbestos dust you get asbestosis."

— 1958 National Gypsum Memo [[View document](#)]

But perhaps the most authoritative account of the dangers of asbestos can be found in a blistering 1964 report from a medical doctor hired by Philip Carey Manufacturing, in which the

doctor describes in no uncertain terms to the company's legal department the health hazards of asbestos to the company's workers and customers. (The doctor was fired soon after the company received his report.)

"There is an irrefutable association between asbestos and cancer. This association has been established for cancer of the lung and for mesothelioma. There is suggestive evidence... for cancer of the stomach, colon and rectum also. There is substantial evidence that cancer and mesothelioma have developed in environmentally exposed groups, i.e., due to air pollution for groups living near asbestos plants and mines. Evidence has been established for cancer developing among members of the household. Mesotheliomas have developed among wives, laundering the work clothes of asbestos workers. Substantial evidence has been presented that slight and intermittent exposures may be sufficient to produce lung cancer and mesothelioma. There should be no delusion that the problem will disappear or that the consumer or working population will not become aware of the problem and the compensation and legal liability involved." (Bowker, pg. 171)

Insurance companies try to dodge a bullet

By the 1970s, the insurance industry was deeply concerned about its financial vulnerability to asbestos claims. In 1980, the American Insurance Association predicted that there would be between 8,000 and 13,000 claims a year from asbestos-caused cancer from 1977 through 1995 [[View document](#)]. This estimate did not include anything but pure occupational exposure to asbestos, even though asbestos was used in several thousand consumer and industrial products at that time, and exposure to the general public was not only staggering in size, but also essentially uncontrolled.

"Control of asbestos in the community air is impossible when you consider the contribution from brake linings, abrasion of piping, house siding or other materials widely handled by the general public."

— 1969 The Travelers Insurance Co. memo
[\[Excerpt\]](#) | [Full document](#)

Companies facing legal action were growing concerned about the implications of their extensive asbestos releases into the environment. The potential liability represented by environmental pollution with asbestos and the release of asbestos fibers in the home became a subject of grave financial concern within the industry.

"Asbestosis, lung or colon cancer claims whether comp or liability, from asbestos workers or those working with asbestos materials, are one thing, but the general public exposure and claim potential is much more serious."

— 1969 The Travelers Insurance Co. memo
[\[Excerpt\]](#) | [Full document](#)

Even worse, reductions of these exposures seemed futile:

"If indeed there is at least a causal relationship of asbestos to the cited diseases, which there appears there is, then a most serious loss potential to the Travelers exists. Even with the engineering controls we have available, the exposure will continue and the long development period of the disease suggests past exposures will continue to haunt us."

— 1969 The Travelers Insurance Co. memo
[\[Excerpt\]](#) | [Full document](#)

In 1968, The Travelers Insurance Company concluded that they faced major financial exposure from deaths due to non-occupational asbestos exposure near asbestos

manufacturing facilities. In particular, the company concluded that it had "no chance of winning" a case brought by a resident living near the Johns Manville plant in New Jersey, who died of mesothelioma in June 1967. This certainty of defeat was no doubt solidified when a Manville attorney informed the Travelers that:

"Confidentially Johns-Manville has been contaminating the 'Hell' out of both the air and the water for quite some time."

— 1969 The Travelers Insurance Co. memo

[\[Excerpt\]](#) | [Full document](#)

A 1975 insurance industry memo summarized non-workplace exposure as a major risk facing the industry. Forty percent of housewives and 50 percent of blue-collar workers had identifiable asbestos fibers in their lungs at death. The author concluded that, "It is now found (that) the public in general is or has been exposed to asbestos products to a far greater degree than previously recognized." [Source: Insurance industry memo 10/09/75]

At the same time, the hazards of asbestos to family members were well known, and nothing was being done about it. Workers were taking home huge amounts of asbestos dust on their clothes, contaminating their homes and exposing their wives who regularly, and unsuspectingly, handled and washed the dust-laden garments.

A 1974 memo from Exxon declares:

"Not only are we violating the existing regulations concerning clothing by not providing such clothing and laundering it, but we are also failing to protect our employees and the families of our employees from asbestos exposure."

— 1974 Exxon memo [\[View document\]](#)

On June 18, 1975, The Travelers Insurance Company's Catastrophe Products Committee laid out "facts" well known to the asbestos industry and its insurers at the time:

"1) Asbestos causes cancer. Once asbestos fibers are ingested by a person, in no matter how small a quantity, they remain in the body and can be the cause of cancer 10 or 20 years later. There is no known way of removing the fibers from the body.

2) Asbestos is used in a wide variety of products: insulation, roofing, chemicals, wallboard, piping, etc."

— 1975 The Travelers Insurance Co. memo [\[View document\]](#)

Asbestos was clearly a potential catastrophe in the making for the industry. An Insurance Company of North America (INA) memo from the time predicts at least \$20 billion dollars in payouts for asbestos-caused cancers alone. This figure assumes just \$10,000 per case, a relatively low figure for asbestos cancers, which are almost always fatal. It does not include any deaths from non-occupational exposure.

"The attached article is an estimate of the possible numbers (plaintiffs) of Asbestos workers who will die from cancer in the next half century.

This figure does not take into consideration "other" possible cancer victims of Asbestosis such as wives of workers, persons living near asbestos factories, school children, etc."

"400,000 potential plaintiffs could generate 2,000,000 files (5 INA insureds per plaintiff).

INA's possible exposure: 2,000,000 x \$10,000.00 = 20 Billion dollars"

— Undated INA memo [\[View document\]](#)

The goal of The Travelers' "Catastrophe Products Committee" was to study the potential for asbestos to wipe out the company's assets, and then, in the company's own words, "make the catastrophe reducible to a level which would not imperil the assets of The Travelers."
[\[View document\]](#)

The question was how to do it. The decision, on the part of insurers, was to adopt the same strategy as producers: deny prior knowledge and admit no liability.

In 1977, the insurance industry's "discussion group on asbestosis" unanimously decided not to admit liability in asbestosis cases. The strategies considered by the insurance companies are also laid out in the minutes of the meeting, including the "possible use of governmental immunity as a defense" in an effort to place the blame on the government for not warning workers of the dangers of working with asbestos.

"The meeting closed with a unanimous rejection of a suggestion that liability in asbestosis cases be admitted..."

— 1977 "discussion group on asbestosis" memo [\[View document\]](#)

The cover up

"KEEP THIS INFORMATION MOST CONFIDENTIAL"

By the late 1940s, asbestos manufacturers, industries that used significant amounts of asbestos in their operations, and their insurance companies all acknowledged internally that asbestos caused lung cancer, asbestosis and mesothelioma. Rather than adopt safety standards, switch to safer products, or provide protections for workers, these companies went to extraordinary lengths to conceal the truth about asbestos from workers, the public and the press. In some cases company officials went so far as to monitor the health of workers while deliberately withholding the results of this monitoring from them. Typically, however, worker health was not actively monitored, but decisive information on the dangers of asbestos was held secret. In other cases, companies interfered with and even rewrote scientific study results, restricted key information on asbestos hazards to management while keeping it from workers, and deliberately failed to label, or altered labels on, products.

A 1949 Exxon document described above illustrates the point. The document lists the diseases from asbestos exposure as "Silicosis, Fibrosis, Erythema & Cancer of Lungs" under the banner "COMPANY CONFIDENTIAL: Not For Publication In Present Form." [\[View document\]](#)

Asbestos diseases are latent, taking decades to appear after initial exposure. This latency period allowed companies to use workers for decades, knowing they were being injured or perhaps even killed by their work, yet also knowing that the men and women on the job would have no early warning that they might die from the asbestos they were exposed to.

For companies like Exxon, DuPont, and Dow that were sufficiently removed from basic asbestos manufacturing, withholding this information was relatively simple — workers would not ordinarily think of asbestos risks — and concealing information was a very effective way to reduce compensation payouts.

As put in a memo from Johns-Manville's medical director to corporate headquarters:

"The fibrosis of this disease is irreversible and permanent so that eventually compensation will be paid to each of these men. But, as long as the man is not disabled it is felt that he should not be told of his condition so that he can live and work in peace and the company can benefit by his many years of experience."
 (Brodeur, pg. 102)

By the early 1960s, the hazards of asbestos were well known within the management level of most companies that dealt with it. Workers and customers, in contrast, were generally kept in the dark or even lied to. A significant part of the asbestos industry, represented by the member companies of the Asbestos Textile Institute, described their management-only information strategy this way:

"...this subject should not be brought to the attention of other than management of our several companies, as any general discussion on this situation by sales personnel with users of our products, could possibly aggravate the situation and result in individual opinions which could be damaging."

[Source: Asbestos Textile Institute memo 11/6/64]

Even work histories on deceased employees were deemed top secret

In 1966, DuPont hoped a company doctor examining an "expired" worker's history of asbestos exposure would keep a lid on the information he was asked to produce for the company:

"We have on record that [blacked out name] a 36 year old employee of your plant expired sometime in 1964 from mesothelioma of the pleura.

Please do a careful investigation and let me know if this individual was ever exposed to asbestos in our employ, how long he was, in what type of work, or any other information that may be available. If at all possible, try to ascertain whether there is any information that this individual worked as a roofer, pipe coverer or any other type of asbestos exposure prior to joining Du Pont. This inquiry is for our own edification only, as no one outside of the Company has raised the question.

We are hopeful you will keep this information most confidential, and let me have your reply as soon as possible. Thank you for your cooperation."

— 1966 DuPont internal memo [[View document](#)]

Keeping employees in the dark meant leaving no stone unturned, even if it meant putting pressure on outside physicians. In November, 1980, DuPont sent a letter to a doctor asking him to remove the word asbestos from a rubber stamp used to mark X-rays which show changes in lung tissue, perhaps due to asbestos exposures. DuPont requested that the language of the stamp, which read "could be due to previous exposure to asbestos or other irritant materials" be changed to "could be due to previous exposure to irritant materials."[\[View document\]](#)

For at least 50 years, from the 1930s through the 1980s the unswerving goal of asbestos users and makers was to keep from workers the undisputed fact that asbestos was a major threat to their health. An internal memo from a W.R. Grace executive summed up the strategy quite clearly:

"The point I am trying to get across is that our present policy is to tell no one anything, no visitors, or discussion of our operations, period."

— 1972 W.R. Grace internal memo [[View document](#)]

Manipulating science

Objective science was a big problem for the industry because it repeatedly showed how extraordinarily dangerous asbestos really was. In response, the industry manipulated results and eviscerated papers in largely successful efforts to bury or obscure results that might damage the bottom line. Some companies simply stopped conducting studies at all, knowing what the results would be and fearing that the public might find out.

A 1948 memo from a New York University professor of industrial medicine, himself a former Metropolitan Life Insurance Company employee, revealed that a report summarizing studies conducted by NYU College of Medicine scientists was revised prior to publication at the request

of Metropolitan Life Insurance and other asbestos insurance companies in order to omit references to cancer:

"A meeting of the representatives of the underwriting companies was held in New York... It was the feeling of this group that all references to cancer or tumors should be omitted... It was decided that after these revisions have been concluded the report of these experimental studies should be published as promptly as possible, preferably in the Journal of Industrial Hygiene. Any report on human asbestosis should be separate and not a part of this report."

— 1948 NYU College of Medicine memo [[View document](#)]

In November 1948, a year after receiving promising results that their Kaylo asbestos product hadn't produced negative health effects in experiments on lab animals, Owens-Corning received a discouraging letter from the lab that had performed the tests. The lab's initial clean bill-of-health finding was premature, and in fact the animals had developed asbestosis as more time elapsed. In conclusion the lab wrote to the company:

"I realize that our findings regarding Kaylo are less favorable than anticipated. However, since Kaylo is capable of producing asbestosis, it is better to discover it now in animals rather than later in industrial workers. Thus the company, being forewarned, will be in a better position to institute adequate control measures for safe-guarding exposed employees and protecting its own interests."

— 1948 Owens-Corning memo [[View document](#)]

Yet, decades later in 1970, intra-company correspondence shows that Owens-Corning was still reluctant to properly label the product to indicate health hazards from asbestos:

"...regarding the warning label that should appear on Kaylo. Are you saying that we have to do this now? I naturally would like to delay this requirement as long as possible."

— 1970 Owens-Corning memo [[View document](#)]

A March 30, 1977 memo from a W.R. Grace health and safety official advised against conducting further study of asbestos-diseased workers out of concern that the information would become public:

"I believe that the results of a study of this nature would become public knowledge within a relatively short period of time regardless of confidentiality agreements. If we are not prepared to deal with that situation, I would advise against proceeding."

— 1977 W.R. Grace memo [[View document](#)]

Keeping information from consumers

Companies with significant asbestos sales used extreme measures to keep their customers in the dark about the risks of using asbestos products. The intimidation tactics and reassuring messages used by these companies no doubt led to complacency about asbestos hazards on the part of consumers, contributing to the incidence of clearly avoidable asbestos diseases now emerging among the general public.

In a 1970 W.R. Grace memo regarding sales of its Mono-Kote fire-proofing spray product, which contained twelve percent asbestos, an employee urged:

"Stay unscrupulous, unethical, mean and selling Mono-Kote."

[[View document](#)]

According to a New York Times investigation of Grace's Monokote product, the company continued selling "re-formulated" Monokote until the late 1980s, labeling it "asbestos-free" despite its knowledge that the product still contained up to 1 percent asbestos. Grace management instructed employees that inquiring customers were to be told the product did not contain any asbestos. Due to Grace's "asbestos free" claim, workers using Monokote stopped wearing protective respirators, believing the reformulated product was safe [The New York Times, 7/9/01].

A 1972 Union Carbide memorandum instructed managers to handle inquiries from concerned customers aggressively:

"If the customer is persistent and threatens to eliminate asbestos — a certain amount of aggressiveness may be effective. Words and catch phrases such as "premature", "irrational" or "avoiding the inevitable" will sometimes turn the table. The main objective is to keep the customer on the defensive, make him justify his position."

— 1972 Union Carbide memo [[View document](#)]

A year later, Union Carbide management instructed its sales personnel that customers should be told "asbestos is not a carcinogen." [[View document](#)]

In 1973, Union Carbide's own medical department advised the company to stop belittling the dangers of asbestos exposure in marketing literature for asbestos products, noting several "misleading" and "half truth" statements in the company's literature. Company doctors referenced government studies indicating asbestos exposures "as short as one day" had produced lung disease, contrary to the company's assertion that "massive long term exposure to asbestos" was required to produce asbestos diseases. [[View document](#)]

Manipulating the media

As word began to trickle out to the mainstream media about the appalling hazards of asbestos, controlling information flow and manipulating the media became a top priority for the industry. In June 1973, at a meeting of the Asbestos Textile Institute, asbestos industry representatives predicted the deaths of tens of thousands of employees from asbestos disease, and then noted that "the good news" was that the public was still vastly unaware of the problem.

The meeting's guest speaker, an executive from the Asbestos Information Association, began his presentation by laying out the facts:

"First, there is no doubt that the inhalation of substantial amounts of asbestos can lead to increased rates of various types of lung disease, including two forms of cancer. These are facts which cannot be denied, even if they do not apply in all circumstances and under all conditions. The medical literature is full of solid evidence linking asbestos to disease. In my office, I have on file more than 2,000 medical papers dealing with the health risks of asbestos and hundreds more are published every year."

— 1973 Asbestos Textile Institute memo [[View document](#)]

The presenter plainly stated that insulation workers "were and still are dying from asbestos disease at an appalling rate." [[View document](#)]

Figures were put forward about what the industry expected to happen to its workers:

"Our prediction is that approximately 25,000 past and present employees in the asbestos industry have died or will eventually die of asbestos-related disease."

— 1973 Asbestos Textile Institute memo

[\[Excerpt\]](#) | [Full document](#)

Then came the "good news:"

"And the good news is that despite all the negative articles on asbestos-health that have appeared in the press over the past half-dozen years, very few people have been paying attention."

— 1973 Asbestos Textile Institute memo
[\[Excerpt\]](#) | [Full document](#)

Finally, the guest speaker laid out his thoughts about media coverage of asbestos issues:

"The press relations battle will therefore be won, not when the media starts to print positive or balanced articles about asbestos, but when the press ceases to print anything about asbestos at all. As long as negative news on asbestos-health continues to be generated, the media will continue to eat it up. The media will only cease to carry such stories when the generation of negative news ceases. It is as simple as that. Positive or balanced stories are a chimera, since they are, by definition, not newsworthy."

— 1973 Asbestos Textile Institute memo
[\[Excerpt\]](#) | [Full document](#)

Anticipating a government investigation into its widespread knowledge of the dangers of asbestos, the industry worried internally and began to ready its defenses. A 1981 Dow internal memo marked "CONFIDENTIAL" had the following note scrawled across the top by a worried executive:

"We are in trouble and would be more so if we had an investigation. We need a crash program."

— 1981 Dow confidential memo [\[View Document\]](#)

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Section 4:**Millions Were Exposed — Were You?**

"Control of asbestos in the community air is impossible when you consider the contribution from brake linings, abrasion of piping, house siding or other materials widely handled by the general public."

— Source: The Travelers, Internal Memo 1969

[View document](#)

"Take home" exposure

Not all of the victims of asbestos are workers, particularly for mesothelioma, the signature and 100 percent fatal asbestos cancer. People hurt or killed by asbestos include the families of the men and women who work with asbestos, the communities that surround current and former asbestos mines, products factories and shipyards, and consumers who innocently exposed themselves and family members to asbestos through products like hair dryers, electric blankets, attic insulation, home siding and ceiling and floor tiles and many more.

Fatal mesothelioma in the families of asbestos workers is the most well-described and prevalent form of non-occupational asbestos mortality. Mesothelioma is unique among asbestos cancers in that it can be caused by very short-term exposures. In approximately three percent of cases, mesothelioma is diagnosed in workers with less than three months exposure; the shortest on record is 16 hours (Leigh 2003). A laboratory animal study published in 1974 also reported that a single high level exposure to at least one type of asbestos, amosite, may be enough to cause mesothelioma in rats (Wagner 1974). One review describes mesothelioma in a person who reported his total lifetime asbestos exposure as one day of sawing up asbestos cement sheets to build two sheds (Greenberg, 1974).

For profiles of mesothelioma victims see [The Mesothelioma Applied Research Foundation](#).

A 1967 summary of 42 mesothelioma cases reported by 152 hospitals in southeastern Pennsylvania showed that 21 percent of cases occurred in people who either lived or worked near a plant that used asbestos, and 26 percent occurred where family members were asbestos workers (Lieben, 1967). An estimated 6.7 percent of mesothelioma cases reviewed in a 1966 survey in the United Kingdom (London, Belfast and Liverpool) were linked to take home and neighborhood exposures.

An EWG Action Fund analysis of government asbestos mortality data for mesothelioma found that from 1985 through 1999, "non-paid worker at own home" was the top ranked business classification on death certificates for mesothelioma. Presumably most of these cases were housewives and family members who died from mesothelioma after they were exposed to asbestos brought home by a parent, spouse, or family member who worked with it.

Hundreds of housewives and family members were killed by "take home" asbestos exposures

Business classification	Reported Mesothelioma Deaths
Non-paid worker or non worker at home	644
Construction	377
Elementary and secondary schools	137
Hospitals	87
General government, n.e.c.	74
Not specified manufacturing industries	61
Eating and drinking places	59
Ship and boat building and repairing	58
Agricultural production, crops	55
Railroads	54
Yarn, thread, and fabric mills	52
Industrial and miscellaneous chemicals	49
Trucking service	46
Electric light and power	41
Blast furnaces, steelworks, rolling and finishing mills	40

Source: EWG Action Fund. Compiled from Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), multiple cause of death file 1985-1999.

A business classification was assigned to just 3,603 of the 14,500 people who were estimated or reported to have died of mesothelioma between 1985 and 2001. If these 3,603 deaths represent the distribution of mesothelioma deaths across businesses represented by all 14,500 cases, then it would appear that about one quarter of all mesothelioma mortality occurs in people who did not work directly with asbestos, but instead worked in environments where asbestos was present, or lived with people who brought asbestos home with them.

A small number of family members of asbestos workers have successfully pursued compensation through the courts. Of the 107,000 client records received by EWG Action Fund from plaintiffs' attorneys, 882 individuals were exposed at home. Of this number, which accounts for less than one percent of total victims represented, 56 developed lung cancer, 77 developed mesothelioma, 672 developed asbestosis, and 77 had other diagnoses.

Passive workplace exposure — schools and hospitals

The same EWG Action Fund analysis of federal mortality data found that five of the ten most commonly recorded industries on death certificates do not have any well-established connection to occupational asbestos exposure. These cases are either due to passive asbestos exposure in the work environment, as with the teachers described above, or because of relatively brief occupational exposures decades ago. Death certificates do not reflect a person's work history. It is not uncommon for an office worker to contract mesothelioma, and only upon detailed questioning recall that decades earlier he or she worked around asbestos in some short-term employment.

Older public buildings where asbestos may be decaying and slowly drifting into indoor air is another major concern. The EPA estimated in 1982 that more than 720,000 public buildings had significant amounts of asbestos in them. Leaving aging asbestos in place is no guarantee of safety, and removing it can be highly dangerous if not done carefully. There is substantial evidence that much asbestos removal does not meet federal standards.

Links:

County: Homeless Removed Asbestos

Tampa Bay Online, Feb 8, 2004

<http://news.tbo.com/news/MGASUSPFEQD.html>

Laborers Face A Lifetime Of Health Worries

Long Island Newsday, February 7, 2004

<http://www.nynewsday.com/news/local/crime/nyc-asbe0207,0,7804476.story>

Father and Son Faked Removal of Asbestos, Workers Say

The New York Times, February 3, 2004

<http://www.nytimes.com/2004/02/03/nyregion/03asbestos.html> (registration required)

One key at-risk group is schoolteachers, who may have received significant exposure to asbestos from soundproofing and fireproofing of ceilings and walls. 'Elementary school teacher' was the eighth most frequently listed occupation on mesothelioma death certificates (NCHS, 2003). Elementary and secondary schools ranked third among all businesses reporting mesothelioma cases. Hospitals ranked fourth. In the late 1970s, it was estimated that two to six million school children and 100,000 to 300,000 teachers had been exposed to asbestos in schools (Nicholson, 1979). A 1991 review describes four teachers with fatal mesothelioma, "...who worked in schools that were insulated with asbestos and who had no other known exposure to this mineral" (Lilienfeld 1991).

A mesothelioma case report published in the journal Respiratory Medicine in 1989 describes a 54-year old woman whose only identifiable asbestos exposure occurred in the office. As explained by the study authors, the ceilings in the building where she worked for 14 years "were sprayed with an inch thick layer of soft asbestos covered by a layer of paint. This evidently deteriorated rapidly, since as a result of complaints about dust in the offices, the ceilings were sealed, repaired and repainted about eight years after the building was constructed" (Stein 1989).

In 1980, the Consumer Products Safety Commission removed similar asbestos ceiling material from its headquarters in Bethesda, Maryland. The agency described the associated risk this way:

"CPSC believes that any exposure to asbestos may involve some increase of risk; no safe level of exposure or so-called "threshold level" has been established. It is impossible to estimate with any precision the exact degree of risk associated with any low-level exposures."

[www.cpsc.gov/CPSCPUB/PREREL/prhtml80/80024.html]

Neighborhood exposure

Living near asbestos products factories can be as dangerous as having family members who work at the plant. A 1967 summary of 42 mesothelioma cases in southeastern Pennsylvania showed that 21 percent of cases occurred in people who either lived or worked near a plant that used asbestos, and 26 percent occurred where family members were asbestos workers (Lieben, 1967). An estimated 6.7% of mesothelioma cases reviewed in a 1966 survey in the United Kingdom (London, Belfast and Liverpool) were linked to take home and neighborhood exposures.

In Libby, Montana, the site of the notorious W.R. Grace vermiculite mine, entire families have been diagnosed with asbestos-related diseases, when just one family member, usually the father, worked at the mine and brought home asbestos dust on his clothes. Children in Libby have developed mesothelioma and asbestosis as adults from playing in vermiculite slag heaps scattered through the town.

The federal government has identified 28 former asbestos manufacturing sites as priority locations for community-wide evaluations of asbestos disease because these sites received approximately 80 percent of the asbestos in Libby from 1964 through 1990 [[View maps](#)]. EPA estimates that 30 million homes have asbestos (vermiculite) attic insulation made at processing plants all across the country.

Federal officials have expressed serious concern about the risks for community residents living near these facilities. "It's like a ticking time bomb inside your chest," said an official with the federal Agency for Toxic Substances and Disease Registry describing a priority vermiculite processing site in Beltsville, Maryland (Washington Post 10/3/03). Madelene Audia, who lives about 150 yards from a former vermiculite plant in Dearborn, Michigan, recalled dust wafting through the neighborhood in the 1960s and 1970s. It settled in homes and on the local ball field where her two children played almost every day. "It would get so bad you couldn't go outdoors," she said (Detroit Free Press 1/22/04).

In 1997, Dr. Michael Berry, a scientist at the New Jersey Department of Health and Senior Services, published a study that investigated mesothelioma incidence in people who lived in the same town (Manville, NJ) or county (Somerset) as the largest asbestos manufacturing plant in North America (Berry, 1997). When plant employees were removed from the analysis, male and female residents of Manville were 10.1 and 22.4 times more likely to develop mesothelioma than residents of New Jersey not living in Somerset county. In all, 24 cases of mesothelioma occurred between 1979-1990 when only 2 would have been expected. Men and women living in Somerset county as a whole were 1.9 and 2 times as likely to develop the disease, a statistically significant increase (58 cases were observed and approximately 30 were expected).

Consumer product exposure

Tens of millions of people were exposed to asbestos through hundreds of common consumer products including hair dryers, electric blankets, heat guns, molding clay, dry wall patch, attic insulation, pipe wrap insulation, fake fireplace logs and many more. Some of these products were banned by the Consumer Products Safety Commission (CPSC). Many were not. The most notorious asbestos product that was never banned by the CPSC is vermiculite (asbestos) attic insulation, from the vermiculite mine in Libby, Montana. Vermiculite, which is contaminated with one of the most potent forms of asbestos, tremolite, was shipped around the country and processed into attic insulation and other products through 1992. EPA estimates that 30 million homes have asbestos (vermiculite) attic insulation made at processing plants all across the country [[View maps](#)]. When disturbed through home renovation or other causes, this insulation will produce significant and hazardous asbestos exposures.

Consumer products containing asbestos present grave and lingering risks to the millions of people who used them, but in general had no idea they were being exposed to cancer causing asbestos in the process. In 1979, the Consumer Products Safety Commission characterized the risk this way:

[Although worker exposure to asbestos fibers on the job is regulated by the Occupational Safety and Health Administration \(OSHA\), CPSC believes that asbestos fibers released from consumer products may pose unique problems in](#)

households. The household environment may harbor these fibers for long periods, and they may be repeatedly stirred up into the air after having settled to a surface. Infants and children in the home are likely to be exposed, and this environment, unlike the workplace, is not equipped with protective clothing or control systems for asbestos fibers.

(CPSC 8/31/79 Commission To Study Asbestos In Consumer Products)
www.cpsc.gov/CPSCPUB/PREREL/prhtml79/79045.html

Asbestos in blow dryers

Perhaps no consumer product better symbolizes the 1970s than the hand-held blow dryer. As it turns out, these hair dryers were not only puffing coifs, but also hurling asbestos fibers into the indoor environment. This extraordinary hazard was discovered entirely by accident, when a photographer using a blow dryer to dry negatives noticed tiny flecks of dust on his negatives. The revelation that this "dust" was actually asbestos led the CPSC to pressure manufacturers to voluntarily stop using asbestos in all hair dryers, though it was never officially banned. CPSC described the risk at the time as less than "many" occupational asbestos exposures, but by implication, presumably greater than others:

"While the risk to an individual from the intermittent use of an asbestos-emitting hair dryer is less than that from many current occupational asbestos exposures, the large number of individuals that may be exposed clearly calls for the elimination of the exposure."

[www.cpsc.gov/CPSCPUB/PREREL/prhtml79/79062.html]

An incredible array of products brought asbestos into the home in the not so distant past. Links to CPSC announcements of bans on selected asbestos-containing consumer products are listed below, followed by a partial list of asbestos-containing consumer products as of about 1980.

Crayons

www.cpsc.gov/CPSCPUB/PREREL/prhtml100/00123.html

Hair Dryers

www.cpsc.gov/CPSCPUB/PREREL/prhtml79/79062.html

Heat Guns (used by model airplane hobbyists)

www.cpsc.gov/CPSCPUB/PREREL/prhtml80/80014.html

Paper Mache

www.cpsc.gov/CPSCPUB/PREREL/prhtml83/83012.html

Artificial Fireplace Ash

www.cpsc.gov/CPSCPUB/PREREL/prhtml77/77076.html

Consumer Patching Compounds

(used to cover up holes and cracks on interior walls of houses)

www.cpsc.gov/CPSCPUB/PREREL/prhtml77/77076.html

Asbestos paper (used primarily to insulate ducts and pipes)

www.cpsc.gov/CPSCPUB/PREREL/prhtml80/80044.html

Other products:

- Broilers
- Barbecue fire starters (electric)
- Deep Fryers

- Frying pans and grills (electric)
- Mixers (electric)
- Popcorn poppers
- Ranges and ovens
- Slow cookers
- Toaster
- Clothes washers and dryers
- Dishwashers
- Refrigerators
- Curling irons (electric)
- Electric blankets
- Heaters, portable electric
- Texture paint
- Asbestos paper (including asbestos paper tape) and millboard (i.e., in rolls or sheets) for consumer use, including but not limited to such uses as (This category does not include paper and millboard sold as a component of another product).
- Wall protection behind heat-generating products
- Floor protection under wood and coal stoves
- Soldering and welding blocks or sheets
- Pipe insulation
- Airduct insulation
- High-temperature wallboard
- Iron rests and burner mats; barbecue mitts, pot holders and similar items
- High-temperature gaskets for wood and coal stoves (including fireplace inserts)
- Stovepipe rings
- Safes, Kilns, safety boxes, filing cabinets, and incinerators

(All from www.cpsc.gov/CPSCPUB/PREREL/prhtml80/80021.html)

Asbestos is still not banned

Although the CPSC took action against the use of asbestos in many consumer products, asbestos is still not banned and is still used widely for certain applications. The 2001 Mineral Commodity Summary for Asbestos from the U.S. Geological Survey (USGS) reported 61% of the asbestos used in the United States (in 2000) was in roofing products, 19% in friction products, 13% in gaskets, and 7% was classified as 'other'.

www.ecy.wa.gov/programs/hwtr/demowasteother.html

(EPA's main asbestos page is: www.epa.gov/asbestos/)

Even today, almost none of the products containing asbestos are labeled as such. This clearly makes it difficult for consumers to choose products that are asbestos-free. According to the CPSC, as of May 2003:

"The extent of current asbestos product labeling is limited. Except for products which are sold unwrapped, such as millboard; and asbestos-cement sheet, all products are labeled with the name of the manufacturer or distributor. Only asbestos paper and furnace cement are labeled as containing asbestos. Non-asbestos substitutes for all asbestos products are widely available to the public for household uses."

(CPSC May 28, 2003, CANCER HAZARD! CPSC Warns About Asbestos in Consumer Products: Safety Alert) www.cpsc.gov/CPSCPUB/PUBS/5080.html

A partial list of products that still contain asbestos can be found at:

www.epa.gov/earth1r6/6pd/asbestos/asbmatl.htm

It is presented below as well.

"Asbestos Containing Materials: Sample List of Suspect Asbestos-Containing Materials"

- Cement Pipes
- Elevator Brake Shoes
- Cement Wallboard
- HVAC Duct Insulation
- Cement Siding
- Boiler Insulation
- Asphalt Floor Tile
- Breaching Insulation
- Vinyl Floor Tile
- Ductwork Flexible Fabric Connections
- Vinyl Sheet Flooring
- Cooling Towers

- Flooring Backing
- Pipe Insulation (corrugated air-cell, block, etc.)
- Construction Mastics (floor tile, carpet, ceiling tile, etc.)
- Heating and Electrical Ducts
- Acoustical Plaster
- Electrical Panel Partitions
- Decorative Plaster
- Electrical Cloth
- Textured Paints/Coatings
- Electric Wiring Insulation
- Ceiling Tiles and Lay-in Panels
- Chalkboards
- Spray-Applied Insulation
- Roofing Shingles
- Blown-in Insulation
- Roofing Felt
- Fireproofing Materials
- Base Flashing
- Taping Compounds (thermal)
- Thermal Paper Products
- Packing Materials (for wall/floor penetrations)
- Fire Doors
- High Temperature Gaskets
- Caulking/Putties
- Laboratory Hoods/Table Tops
- Adhesives

- Laboratory Gloves
- Wallboard
- Fire Blankets
- Joint Compounds
- Fire Curtains
- Vinyl Wall Coverings
- Elevator Equipment Panels
- Spackling Compounds

(Source: www.epa.gov/earth1r6/6pd/asbestos/asbmatl.htm)

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Section 5:**The Failed EPA Asbestos Ban****Asbestos manufacturing and sale of asbestos-containing goods is still legal in the US**

Although public health professionals had long been aware of the deaths and illnesses related to asbestos exposure, it wasn't until the early 1970s that asbestos garnered the attention of the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA). As the agencies began to take note of existing and developing science and epidemiology regarding asbestos-related health hazards, they started to issue safety standards and regulations of the dangerous fiber. In 1971, EPA promulgated an emissions standard under the Clean Air Act. A year later, OSHA put forth an occupational standard, which got progressively more protective over the course of the decade.

**Asbestos products:
What's still sold**

In 1991, the U.S. Fifth Circuit Court of Appeals overturned what was commonly known as the "Asbestos Ban and Phaseout Rule of 1989." Consequently, scores of asbestos products [remain on the market](#) today.

In spite of the court's action, a short list of products remain banned under the Toxic Substances Control Act (TSCA) and the Clean Air Act. These include: corrugated paper, rollboard, commercial paper, specialty paper, flooring felt, sprayed-on materials containing more than one percent asbestos, and all new asbestos applications are banned.

[\[Learn More\]](#)

EPA and OSHA regulations of asbestos remained limited in their reach when EPA decided in 1979 to issue a notice of its intent to regulate asbestos under the authority of Section 6 of the Toxic Substances Control Act (TSCA). Because an absolute ban is possible under TSCA, the potential for a ban became imminent, and asbestos producers and the Canadian government began to pressure the Reagan Administration's Office of Management and Budget (OMB) to halt EPA's efforts. Canada took a particular interest in the matter because 95 percent of the 85,000 tons of asbestos used in the United States at the time came from Canada, primarily Quebec (Kriz, Good Riddance, 1989; Canada Reportedly Pushing Asbestos Exports to US, Asbestos and Lead Abatement Report 2000). EPA officials eventually succumbed to this pressure, and, in 1984, announced that EPA would refer the asbestos issue to OSHA and the Consumer Product Safety Commission (CPSC) (BNA 1985; AP 1985). Notably, CPSC had not taken any significant action to limit asbestos exposure in consumer products since 1982. EPA employees were outraged by the decision, and issued a public letter of protest. In the face of this public pressure, EPA reversed its position again and decided to support the ban (McGarity, 1994, at 952-54; AP 1985).

In 1989, after conducting a ten year study, spending ten million dollars, and accumulating a 100,000 page administrative record, EPA announced that it would phase out and ban virtually all products containing asbestos. (54 Fed. Reg. 29,460 (1989); Stadler, 1993, at 423). The ban applied to the manufacture, import, processing and distribution of asbestos products. It would affect 94% of all asbestos consumption, including a ban of asbestos-containing products like brake linings, roofing, pipes, tile, and insulation. EPA's stated rationale for the ban was simple: "asbestos is a human carcinogen and is one of the most hazardous substances to which humans are exposed in both occupational and non-occupational settings." (54 Fed. Reg. 29,460, at 29,468 (1989)). An apparent victory in the nearly 20-year struggle to protect the public from asbestos exposure, and promising use of TSCA as a tool to protect public health, the EPA ban would ultimately fail to overcome the vigorous campaign to perpetuate the use of asbestos.

From the outset, the measure met with fierce opposition. Citing job loss and potential economic ruin, asbestos industry supporters referred to the ban as "death by regulation." Asbestos product manufacturers and industry organizations swiftly filed a lawsuit challenging the ban's validity under TSCA in *Corrosion Proof Fittings v. EPA*. They sought to overturn the ban, claiming that it was too costly and that the alternatives were neither more effective nor safer than asbestos. The Canadian Federal Government and the Province of Quebec sought to join in the case, but were denied due to lack of standing. EPA defended the ban, arguing that a ban was necessary to address the unreasonable risk of harm imposed by the continued use of asbestos.

In a seminal decision, the Fifth Circuit vacated the ban, finding that EPA failed to present "substantial evidence" to justify the ban under TSCA. Despite its acknowledgment that "asbestos is a potential carcinogen at all levels of exposure," the court attacked the EPA's action on several fronts. The court determined that the agency's administrative record failed to demonstrate that the ruling was the "least burdensome alternative" for eliminating the "unreasonable risk" of exposure to asbestos, as required by TSCA. The court questioned EPA's analysis of product substitutes, finding that the proposed substitutes were unavailable or potentially harmful (*Corrosion Proof Fittings v. EPA*, at 1220). The court also rejected EPA's cost/benefit analysis, challenging EPA's consideration of "unquantifiable benefits," and dismissing EPA's determination with respect to the presence of unreasonable risk (18 Am. L. J. and Med. 395).

The Fifth Circuit's decision has been called a "tragedy for the EPA," for it is seen as having "place[d] seemingly impossible analytical requirements on [government] agencies." (Stadler, 1993, at 433; Percival, 1997, at 521). Scholars note that the ruling in "*Corrosion Proof Fittings* reaches beyond asbestos regulation, restricting the EPA's ability to regulate the use of any toxic substance under TSCA." The holding indeed poses a serious question: If EPA can't ban a known carcinogen, at which no level of exposure is safe, how can EPA regulate any toxic substance?

Even more disturbing than the Fifth Circuit ruling was the decision by the first Bush Administration not to appeal the case. After ten years of research and deliberation, millions of dollars poured into the regulation, and countless hours of work by environmental health officials, the asbestos ban was completely abandoned. The ruling left room for EPA to reconcile its research in accordance with the court's reasoning, but no further action was pursued. EPA did not persist in its decision to eliminate the "unreasonable risk" posed by asbestos. Instead, the public was left to bear the burden. Products containing asbestos are still sold and manufactured in the United States today.

References

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Section 6:

Tiny Amounts are Deadly

"The undisputed medical facts [are that] ... [a]ctual bodily injury, in the form of tissue or cellular damage caused by lodged asbestos fibers, begins shortly after such fibers are first inhaled."

- Source: Pittsburgh Corning Corporation, 1984)

"...insult to the body occurs at the first inhalation of asbestos and although changes take place thereafter, it is not until the disease is relatively advanced that a firm diagnosis of asbestosis can be made."

- Source: The Travelers Ins. Co. Statement, 1981

[\[Excerpt\]](#) | [Full document](#)

No one is in favor of compensating individuals for a disease or injury they do not have. But asbestos diseases, particularly the early stages of asbestosis, do not lend themselves to a simple diagnosis. For asbestosis, which is progressive and in many cases fatal, the absence of observable physical impairment by X-ray or other measures is no guarantee that the disease is not present and that significant damage has not already occurred. A person may have lost more than 25 percent of their lung capacity due to scarring from asbestos and have no observable damage at all.

Diagnosing early stage asbestosis is a multifaceted procedure. Specialized reading of X-ray results is just one of five components of a complete diagnosis that typically involves an evaluation of pulmonary function, documentation of a history of asbestos exposure, shortness of breath, and clubbing of fingers.

The original X-ray reading system for workers exposed to asbestos was devised by the National Institute for Occupational Safety and Health and involved four different specialists, called B readers, reading and classifying X-rays independently. The outlier result, most often

the most severe classification, was then discarded, and the classification for the individual was derived as the average of the remaining three ratings. A diagnosis was not considered complete, however, until a full evaluation, including all the components listed above, was performed.

Today's "unimpaired" asbestos worker could easily be tomorrow's mortality statistic. Any asbestos compensation fund set up by the Congress must account for this medical fact and not deny, delay, or complicate future assistance based on current lack of impairment.

Policies to protect potential asbestos victims must be flexible and inclusive because:

- Bodily injury begins with the first inhalation of asbestos fibers, yet lung damage from asbestos cannot be detected by X-ray until an estimated 30 percent of lung capacity has been lost. Inability to detect damage via X-ray does not mean that a person does not have the disease.
- Asbestosis is a progressive disease. Twenty-eight (28) to 38 percent of persons with the disease progress to a more severe classification within 2 to 10 years (Markowitz 1997).
- People with early stage asbestosis, many of whom would be classified as unimpaired in the proposed Senate legislation, are at substantial risk for lung cancer or mesothelioma. In the definitive study of asbestos insulation workers, 30 percent of workers with no X-ray evidence of lung damage (a zero classification on the ILO system) died of mesothelioma or lung cancer within 27 years of the initial diagnosis. Those with "minimal X-ray change" fared even worse. Nearly 40 percent (39.9 percent) of individuals initially diagnosed as ILO classification 1, died of these two cancers within the 27 years analyzed. [[View document](#)]

If unimpaired people are in fact being compensated, the compassionate response is to upgrade the quality of diagnoses, not to deny compensation to entire categories of individuals based solely on X-ray classifications.

But in fact it is not at all clear that so-called "unimpaired" people are having any significant impact on compensation. David Austern, General Counsel for the Manville Trust, estimates that between two thirds and three quarters of the 200,000 non-cancer claims brought before the Trust were legitimate Level II cases, a clearly impaired asbestosis diagnosis [[View document](#)]. An analysis of insurance industry data on compensation awarded under the Babcock and Wilcox asbestos trust found that 70 percent of claims qualified as substantial impairment or greater (Peterson 2003b). The rest were simply not paid.

Perhaps a more serious concern is that very few asbestos workers ever step forward and seek any compensation at all. Most die with or from their disabilities and diseases, leaving their families bearing the brunt of medical costs as well as the emotional strain of a prolonged and preventable illness. A great number of experts, particularly those not employed by defendant companies, feel that misdiagnoses of asbestosis cases are a significant source of underreporting bias (Markowitz 1997). Many, and perhaps even the majority, of workers with asbestosis are misdiagnosed with emphysema or other respiratory ailments.

Between 1940 and 1979, an estimated 27.5 million workers were exposed to asbestos at work, and in 18.8 million workers exposure levels would be considered high (Nicholson 1982). Millions more have been exposed since then. For some jobs, asbestos levels would routinely exceed the current OSHA guidelines by 200 to 400 times (Welch 2003). An extremely high percentage of workers in asbestos-exposed occupations will develop some form of asbestos-related disease. A 1980 estimate of potential asbestos claims by the American Insurance Association (AIA) noted that "lung cancer deaths occur in approximately 20-25 percent of all deaths of asbestos workers, and mesothelioma deaths in 7-10 percent of all deaths of asbestos workers..." [[Excerpt](#) | [Full document](#)]. This same document estimated that 25 to 33 percent of potential claims from exposed workers in 14 industries would be based on asbestosis. [[Excerpt](#) | [Full document](#)]

Worker monitoring confirms these projections. Thirty-eight percent of pipe insulators in ship construction develop asbestosis 20 years after first exposure (Department of Health and Human Services 1978); 27 percent of asbestos exposed construction workers had radiographic evidence of asbestosis (Kilburn 2000). Although today's workers breathe less asbestos than workers prior to 1980, it is exposures 20 and 30 years ago that are producing casualties today.

Just 730,000, or 2.5 percent, of the 27.5 million workers exposed on the job to asbestos through 1978, have filed suit for compensation.

Deterioration from a diagnosis of "unimpaired" to death can be relatively rapid, even for non-cancer outcomes. Almost one in a hundred (0.9%) North American insulators with normal baseline X-rays [International Labor Office (ILO) Category 0] followed for ten years died due to asbestosis (Markowitz 1997). Insulation workers in [ILO category 1](#), the least severe asbestosis classification, have a 2.4 percent risk of dying from the disease within ten years (Markowitz 1997).

People at these early stages typically do not have any evidence of a functional impairment, meaning that they do not experience symptoms such as shortness of breath, coughing, chest pain and tightness. Only later, when the disease has progressed to the point of reducing lung capacity by more than 30 percent do people begin to notice symptoms.

Once a diagnosis has been made, asbestosis typically progresses to increasingly serious stages. In what has become a classic memo, Dr. Kenneth Smith, the medical director at Johns Manville stated, "The fibrosis of this disease is irreversible and permanent..." (Brodeur 1985, pg. 102).

Estimates from a Finnish cohort of asbestosis cases found that the disease progressed to a more severe form in 28 to 38 percent of patients during a two to ten year follow-up (Oksa 1998). Selikoff's classic study of insulation workers shows that the number of asbestos insulation workers with [ILO categories 2 and 3](#) greatly increased in the decades following first exposure, reaching 65 percent after 40 years (Selikoff 1976).

Asbestosis is a Progressive Disease

Years since exposure	Asbestosis Diagnosis by ILO classification (Percent)					
	No	0	1	2	3	2 & 3
40+	121	5.8	28.9	42.1	23.1	65.2
30-39	194	12.9	52.6	25.3	9.3	34.6
20-29	77	27.2	45.5	22.1	5.2	27.3
10-19	379	55.9	41.7	2.4	0.0	2.4
0-9	346	89.6	11.4	0.0	0.0	0.0

(Modified from Selikoff, 1976, as cited in Walker, 1983).

If asbestosis becomes severe, classified in ILO category 3, 35 percent of insulation workers will die from the disease within ten years (Markowitz 1997). One third of workers with advanced asbestosis (ILO categories 2 and 3) will die of lung cancer (Selikoff 1990).

Additional research links asbestosis progression with lung cancer. In a ten-year Finnish study,

risk of lung cancer increased dramatically if asbestosis progressed during the period analyzed; approximately 46 percent of progressors developed lung cancer compared to nine percent of patients whose asbestosis did not progress. All lung cancer cases were current or former smokers (Oksa 1998b). According to an insurance industry association (AIA) review, approximately 50 percent of patients diagnosed with asbestosis will die of or with lung cancer. [[Excerpt](#) | [Full document](#)]

More than one third of asbestos insulation workers diagnosed as "unimpaired" died from asbestos disease within 27 years. (Selikoff 1990).

Cause of Death After 27 Years	Initial Diagnosis ILO category (0/0, 0/1)	Initial Diagnosis ILO category (1/0, 1/1, 1/2)	Initial Diagnosis ILO categories 2 and 3
Lung cancer	17.2%	26.7%	34.3%
Mesothelioma	12.6%	13.2%	2.9%
Asbestosis	5.6%	11.2%	45.7%
Total Asbestos-related deaths	35.4%	51.1%	82.9%
Percent who progress to higher stage	28 to 38% within 2 to 10 years (Oksa 1998)		

Asbestos industry and insurance experts readily acknowledge in court proceedings that asbestos fibers begin causing tissue or cellular damage shortly after asbestos fibers are first deposited in the lung and that the disease is progressive and irreversible. These experts also agree that the disease is typically diagnosed only in the advanced stages.

"The undisputed medical facts [are that] ... [a]ctual bodily injury, in the form of tissue or cellular damage caused by lodged asbestos fibers, begins shortly after such fibers are first inhaled."

(Source: Pittsburgh Corning Corporation, 1984, at 8.)

"injury and the onset of fibrosis occur soon after the initial deposition of asbestos fibers in the lung ...is supported by the overwhelming weight of the medical evidence."

(Source: Armstrong World Industries, Inc. 1987, at 21.)

"The only conclusion that can be drawn from the medical evidence is the conclusion that is virtually uniform in the medical literature — asbestos-related injuries are the result of a continuous injurious process, beginning with first exposure and continuing through clinical manifestation."

(Source: Post-Trial Phase III Brief of Policy Holders on the Medical Evidence, 1986, at 8.)

"Moreover, that injury occurs continuously from the first day of occupational exposure through clinical diagnosis whether or not there has been an intervening

period of no exposure"

(Source: Post-Trial Phase III Brief of Policy Holders on the Medical Evidence, 1986, at 20.)

"The first injury leading to the development of bronchogenic carcinoma or mesothelioma ... is the inflammatory reaction and onset of fibrosis which occur at the time of initial exposure."

(Source: Armstrong World Industries, Inc., 1987, at 41.)

"Once the gas exchange capacity of an individual alveolar/capillary unit is compromised, the loss is permanent."

(Source: Armstrong World Industries, Inc., 1987, at 10.)

"The accumulation of scar-like tissue decreases the functional volume of the lungs, stiffens the passage ways, and impedes the transfer of gases in and out of the blood. If the process continues, the functional capacity of the lungs becomes inadequate to support normal activities and may eventually be unable to support life."

(Source: Brief of The Travelers Insurance Co., 1981.) [[View document](#)]

"The injury to the body begins at the first inhalation of the asbestos fibers. Although the eventual change in the lungs begins to develop at this time, it is not until the disease is relatively advanced that a firm diagnosis of asbestosis can be made."

(Source: Internal Memo of The Travelers Ins. Co., Liability Claims Administration, Section 18, Injurious Exposure Claims, at sec. 18.1.)

"It is estimated that in order for the disease asbestosis to be clinically diagnosed, the gas exchange function of at least 100 million alveolar/capillary units [1/3 of the lung] must be affected."

(Source: Armstrong World Industries, Inc., 1987, at 12.)

Endnotes

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ILO Categories Explained

Testimony of Laura Welch, MD
Medical Director, Center to Protect Workers Rights On Asbestos Related Diseases

Medical Criteria, Populations at Risk and Disease Projections Before the Senate Judiciary Committee June 4, 2003

Excerpt, page 3:

The International Labor Organization developed a way of grading chest x-rays for dust diseases of the lung. The most recent version is the 1980 Classification of the Radiographic Appearance of Pneumoconioses (dust diseases of the lung). This system is accepted around the world. It provides a standard notation, so that if one reader calls a film a "1/1" another reader will know what the first reader is referring to. The classification uses a 12-point scale to define the degree, or severity, of increased lung markings. Classification of pleural changes (involvement of the membrane lining the chest wall and the lung) uses a separate scale, with specific notations made for side of the chest, whether or not the plaques contain calcium deposits, and the specific type, length, and width of the thickening of the pleura.

This 12-point scale runs from 0/- to 3/+; a "0" film is normal and a "3" film is the most severe scarring. Each reading on the scale is characterized by a number between 0 and 3, and a second number, separated by "/". The first number, preceding the "/", is the final number assigned to that film by that reader. The second number, following the "/", is a qualifier. The numbers 0, 1, 2, and 3 are the main categories. An x-ray read as a category 1 film might be described as 1/0, 1/1, or 1/2. When the reader uses 1/1, he is rating the film as a 1, and

only considered it as a 1 film. If he uses 1/0, he is saying is rating the film as a "1", but considered calling it a "0" film before deciding it was category 1. Finally, when the reader uses 1/2, he is saying he is rating the film as a "1", but did consider calling it a "2" film. In clinical practice, any category "1" film is abnormal; therefore a 1/0 film is consistent with asbestosis.

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Recommendations:

Addressing the Asbestos Epidemic

[Read recommendations](#)

A six-month EWG Action Fund investigation into asbestos in America uncovered an epidemic of asbestos disease and mortality that affects every state and virtually every community in the country. Asbestos kills 10,000 Americans each year, 2,500 more than skin cancer, and that number appears to be increasing. While most of these individuals are workers exposed decades ago, asbestos is not yet banned and more than 1 million people are currently exposed to asbestos on the job. Millions more are exposed to asbestos in the environment. As long as asbestos continues to be used in consumer products and remains available for dispersion in millions of buildings and homes where it was used liberally for half a century, it will continue to kill and injure thousands of innocent people for decades to come.

Advocates of asbestos tort reform argue that excessive litigation by individuals injured by asbestos is bankrupting scores of major corporations and may even bankrupt the U.S. economy. A review of public statements by corporations with asbestos liability shows otherwise. "Bankrupt" companies put quite a different face on this liability for Wall Street investors, calling their asbestos bankruptcies "good news" (Halliburton), with "little impact on day-to-day operations" (Babcock and Wilcox).

Most companies that have been through asbestos bankruptcies are highly competitive and profitable. This is because asbestos bankruptcies are not liquidations, but are reorganizations that shield all company assets and subsidiaries from future asbestos claims as they attempt to provide fair compensation for individuals and families harmed by decades of highly profitable, but largely uncontrolled, asbestos manufacturing and use.

Asbestos is a public health problem of epidemic proportions. More than 100,000 people will die of asbestos diseases in the United States in the next ten years, and many more than that will be forced to live with painful, permanent and debilitating lung damage.

But asbestos is also a story of unparalleled corporate callousness. For more than 50 years, company after company was willing to lie to their workers about the known hazards of asbestos, mislead regulators, manipulate science, and delay worker safeguards. During all of this time, not a single producer, user, or insurance company stepped forward to defend the health and rights of workers who, with full knowledge of management and medical staff, were literally dying by the thousands from exposure to this substance.

It was only through the courts that this story was uncovered. It was only through the courts that some small percentage of injured workers and their families received some assistance in managing the personal tragedy of asbestos injury and death.

Now comes the Congress with a plan to help the victims of asbestos. The core of this plan is a national asbestos trust fund of uncertain size. The proposed legislation and the fund it would create have been criticized by asbestos victims and their lawyers as a bail-out for companies with asbestos liability that is inadequate to help all injured parties, and will confiscate money from people who have already had their day in court and been awarded funds to help them manage their illnesses.

The asbestos tragedy is so enormous that a national trust fund may indeed be part of a solution. The fund proposed by Senators Frist and Hatch, however, is grossly insufficient. It is capped at about \$110 billion dollars but according to an independent analysis of a 2003 study commissioned by the insurance industry, the fund may need to be tripled to more than \$300 billion to provide for all people injured by asbestos over the next 50 years (Peterson, 2003b).

Recommendations

Whatever solution is adopted, be it a fund, litigation, or a combination of the two, it must adhere to the following principles.

- Everyone injured by asbestos must receive a fair measure of assistance, and this help must not be delayed, denied, or made more complicated by any action taken by the Congress. Because asbestos is still used this means that funds must be available to help people for at least another 50 years, and very likely longer.
- In order to ensure that everyone injured by asbestos receives help, the Congress should establish a major federal asbestos health screening initiative through the National Institute for Occupational Safety and Health. The goal would be to screen everyone with work history of asbestos exposure to identify the millions of people likely injured by asbestos.
- No one should be forced to give up their right to legal representation. A national trust fund may be part of an equitable solution to the asbestos epidemic, but participation in the fund must be optional, as it is with the fund established to help families of the World Trade Center disaster.
- Asbestos must be banned. There is no reason to continue the litany of unnecessary injury and death that comes from asbestos use. Alternatives exist, the time to ban asbestos is now.
- Asbestos remediation must be tightly monitored by health and environmental authorities. A string of recent press accounts reveals that unsafe, and even fraudulent practices are rampant in the asbestos remediation industry.

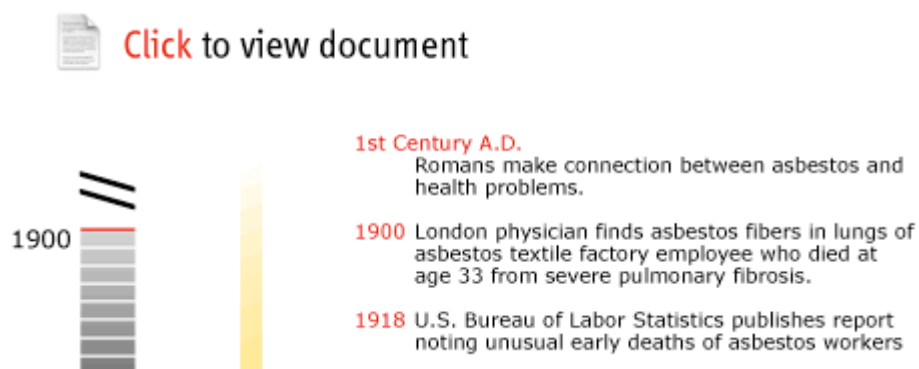
Interactive: Industry Documents

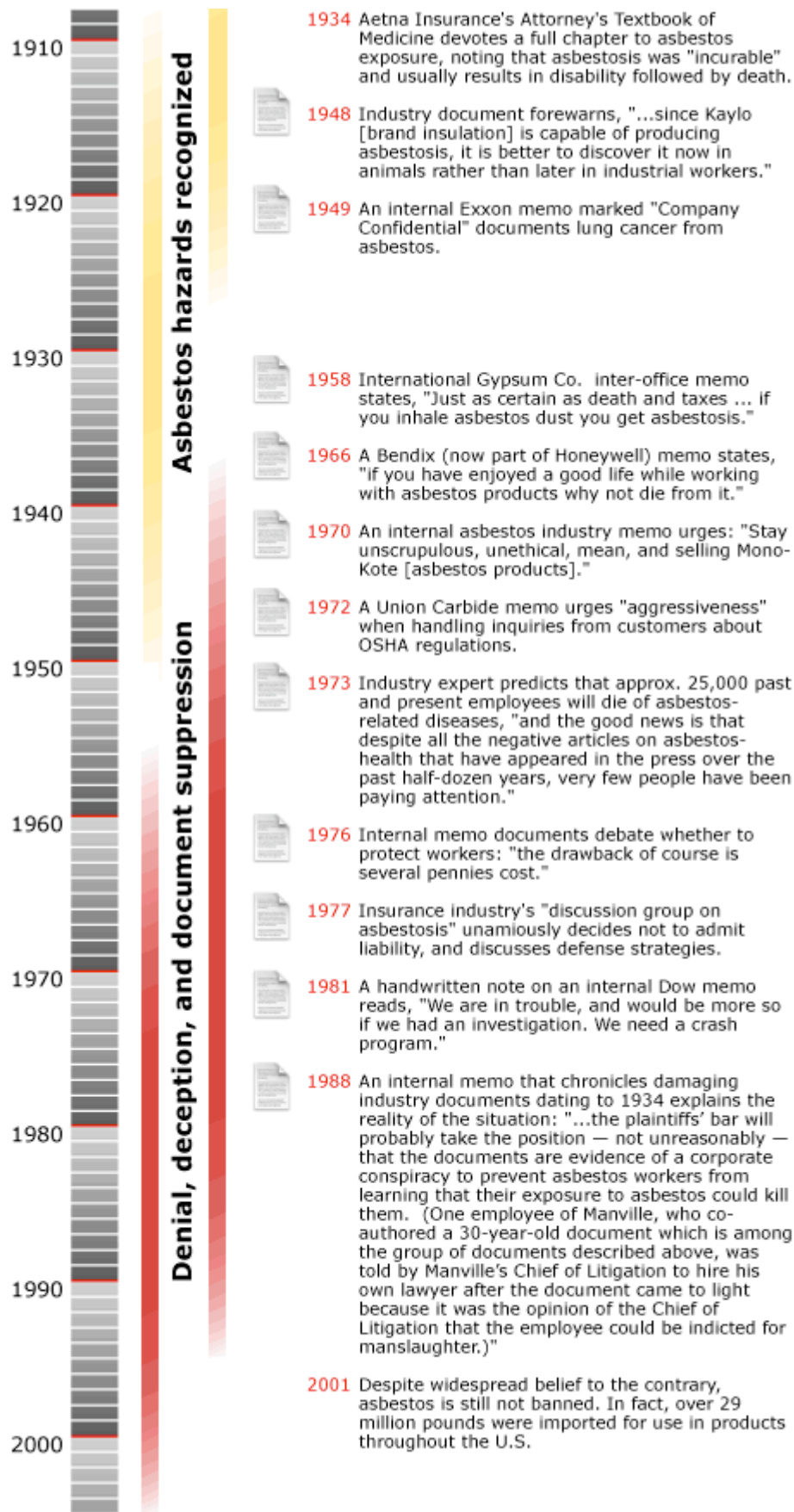
Asbestos timeline: What industry knew, and when they knew it

This page presents a browsable cross-section of the many industry documents uncovered by EWG during our research.

You can quickly browse any of the documents mentioned in the timeline at:

<http://www.ewg.org/reports/asbestos/documents/>





For a detailed discussion of the asbestos story in the industry's own words, see "Something In The Air, The Asbestos Document Story" (section 3) at:

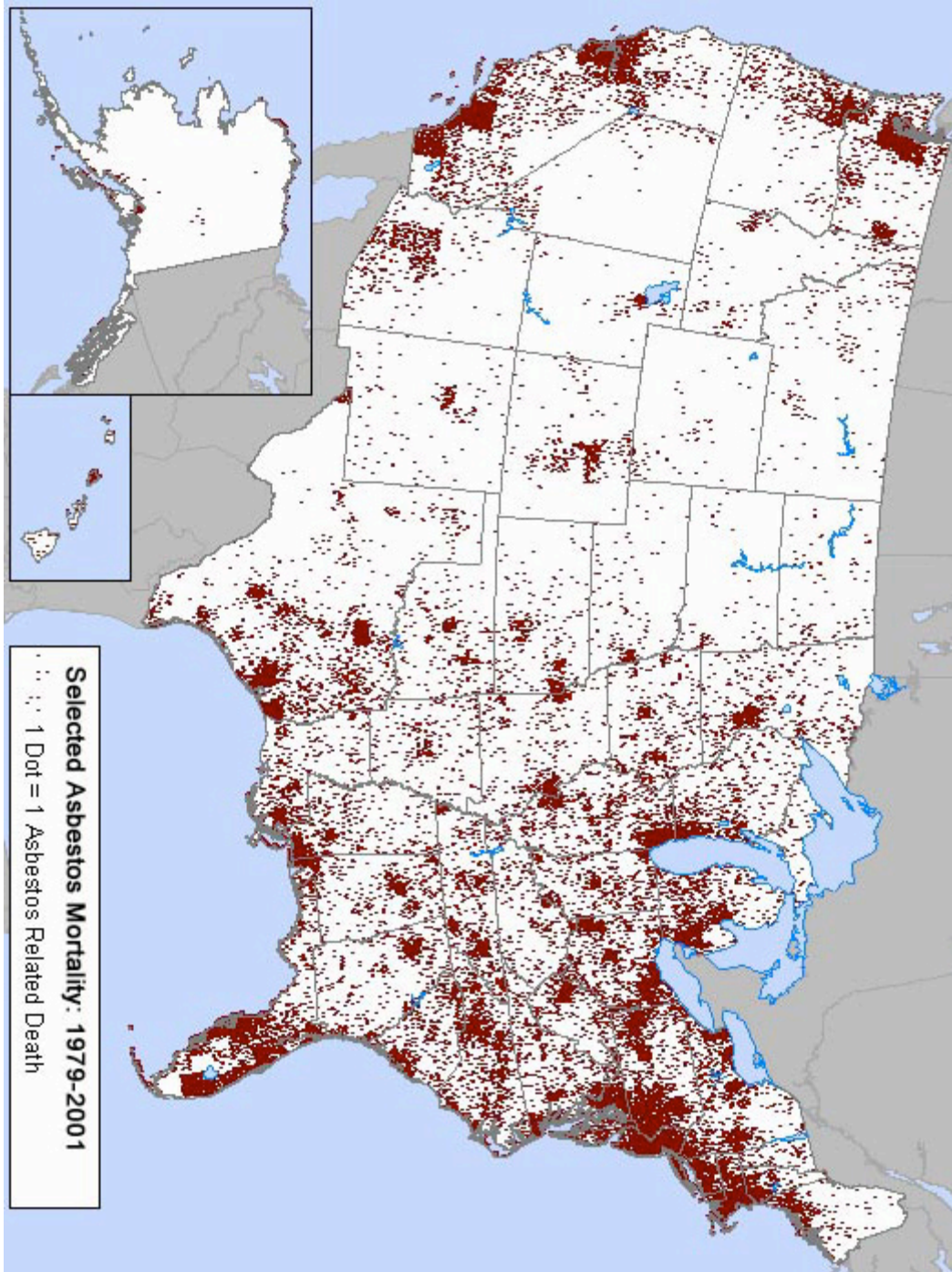
<http://www.ewg.org/reports/asbestos/facts/fact3.php>

Interactive: Government Data

Government Data on Asbestos Mortality

At Least 43,073 People Have Been Killed By Asbestos Since 1979

The map below displays asbestos deaths from mesothelioma or asbestosis as reported to the federal government via death certificate records from 1979 through 2001. It likely represents less than 20 percent of total asbestos mortality during that time.



Source: EWG Action Fund analysis of Government Death Data.

About This Map

The dots on this map represent individuals who have died from asbestos-related disease as confirmed by death certificate records. To protect the identity of the victims, the dots on the map have been randomly placed within the county where the death was recorded.

The map represents just a small portion of all asbestos-related mortality that occurred during the time period analyzed. It does not include a single lung cancer death caused by asbestos, although national estimates of lung cancer mortality from asbestos range from 5,000 to 10,000 per year during that time. The data also grossly underestimate mesothelioma mortality, the signature asbestos-caused cancer. This is in part due to under-diagnosis of the disease, but in greater measure because mesothelioma was not tracked by the federal government as a cause of death until 1999. Prior to that, scientists estimated mesothelioma mortality by assuming cancers of certain sites (for example, the pleura) were mesothelioma. This resulted in dramatic underestimates of the true mortality rates. When the government began tracking mesothelioma as a cause of death, mortality more than doubled, from 935 in 1998, to 2343 in 1999.

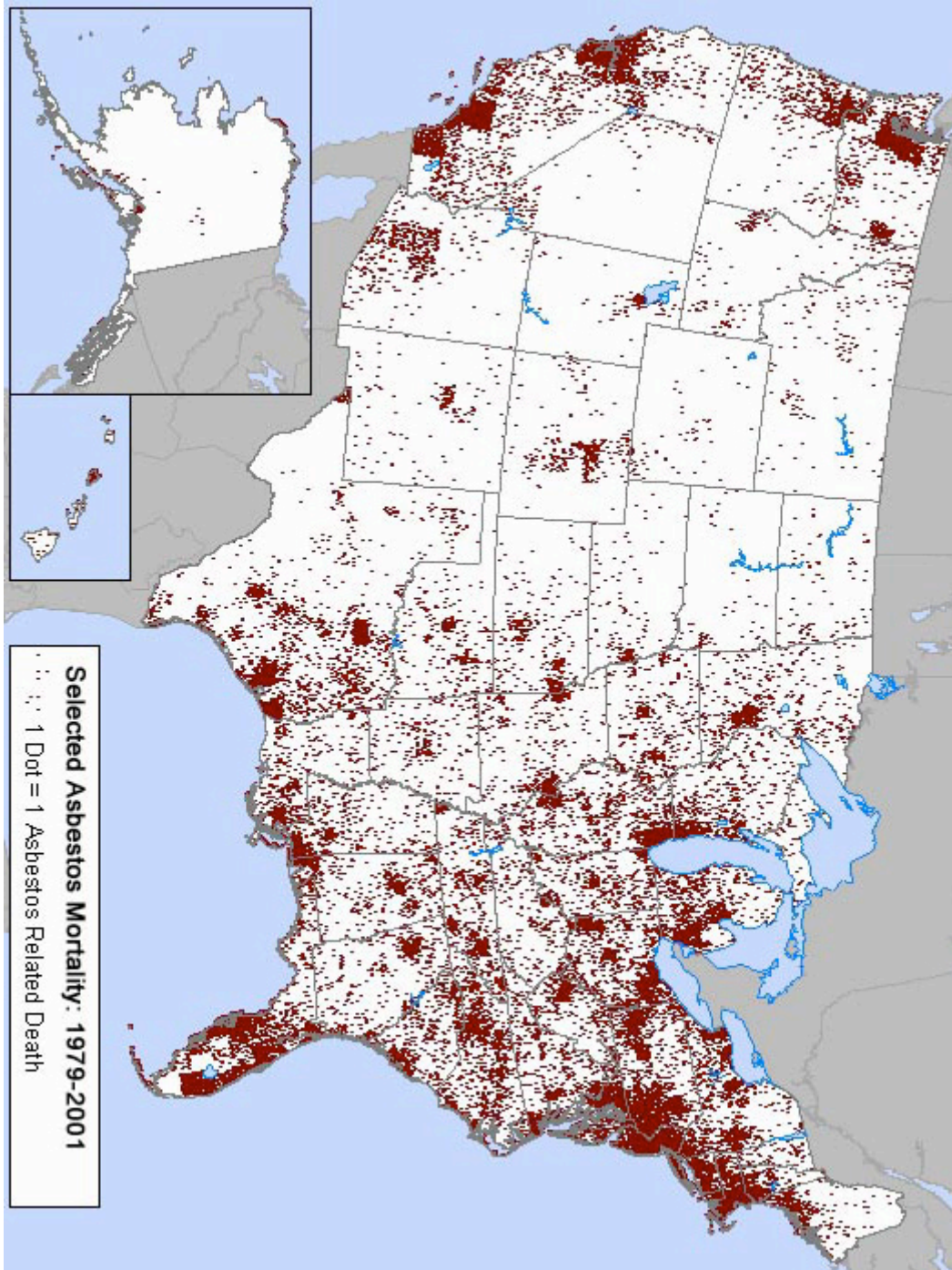
The map also does not include asbestos mortality from gastrointestinal (GI) cancer. The link between asbestos and GI cancer is contested by industry and its insurance companies, but the EPA, OSHA, NIOSH and the World Health Organization International Agency for Research on Cancer all have concluded that asbestos does cause some types of GI cancer. The best national estimates range from 1,200 to 1,500 asbestos-caused gastrointestinal cancers per year.

If the data presented above are corrected to include lung and gastrointestinal cancer and more accurate estimates of mesothelioma incidence, nationwide, the total mortality from asbestos from 1979 through 2001 would be about 230,000 people.

View an interactive map with detailed state-level analyses at:
http://www.ewg.org/reports/asbestos/maps/government_data.php

Interactive:

People Seeking Justice



Source: EWG Action Fund analysis of data provided by attorneys representing people harmed by asbestos.

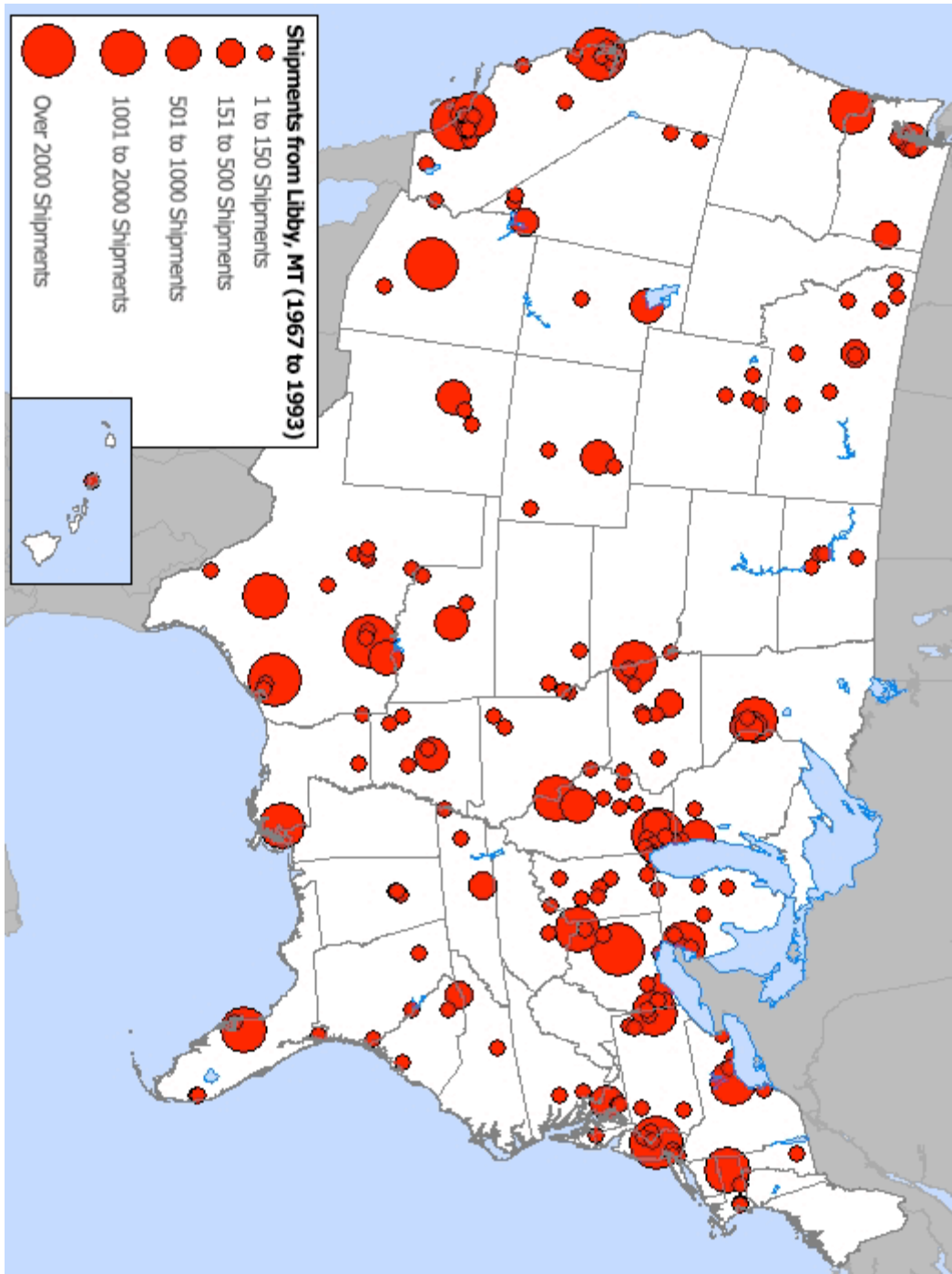
View an interactive map with detailed state-level analyses at:

http://www.ewg.org/reports/asbestos/maps/victim_data.php

Interactive: Maps Showing Where Asbestos Was Shipped

Places That Handled Asbestos Shipments

At least 63,073 shipments were sent from Libby, MT between 1948 and 1993



Source: EWG Action Fund analysis of shipment invoices from Libby, MT.

An interactive map with detailed state-level analyses is at:

http://www.ewg.org/reports/asbestos/maps/shipment_data.php