



The U.S. Environmental Protection Agency (EPA) was created under the authority of the Clean Air Act of 1970 (CAA) to protect the public from hazardous airborne contaminants. Pursuant to the Act, the EPA began to develop National Emissions Standards for Hazardous Air Pollutants (NESHAP) to limit public exposure to various contaminants. Within this framework, the EPA listed asbestos as a hazardous air pollutant on March 31, 1971. The Asbestos NESHAP requires owners and operators of facilities to notify the appropriate authority (usually the state designated agency for asbestos) before demolishing or renovating facilities if minimum amounts of regulated asbestos will be removed or disturbed (EPA, 1971).

On April 6, 1973, the EPA prohibited spray application of products containing more than 1% asbestos by weight and adopted a regulation prohibiting any "visible emissions" in milling and manufacturing operations and during the demolition of buildings (EPA, 1973). In 1978, the EPA expanded the spray ban to include spray application of such products for "decorative" purposes (EPA, 1978).

On October 14, 1975, the EPA defined "friable asbestos material" as any material containing more than 1% asbestos by weight that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure, and required that prior removal of asbestos material occur any time more than 206 linear feet

of pipe insulation or 160 square feet of friable surface-applied asbestos material was disrupted during building demolition or renovation. The EPA also banned installation of asbestos block insulation on boilers and water tanks in 1975 (EPA, 1975).

In 1976, the Toxic Substances Control Act (TSCA) was passed, conferring additional authority upon the EPA to regulate asbestos. Under the TSCA, the EPA was empowered to monitor chemical substances and regulate any chemical determined to pose an "unreasonable risk" to human health and/or to the environment (EPA, 2021). In 1989, after determining that asbestos posed such a risk, the EPA issued a final rule under the TSCA, prohibiting the manufacture, importation, processing, and distribution of most asbestoscontaining products in commerce. The rule contemplated a three-stage process during which certain products would be completely phased out of commerce over a several year period (EPA, 1989). In 1991, however, the Fifth Circuit Court of Appeals vacated the 1989 EPA regulation to ban ACM products in commerce. The court ruled that the EPA failed to give sufficient consideration to its statutory mandate to promulgate regulations which achieve protective purposes in the least-burdensome manner available. The court also determined that the EPA failed to provide the public with proper notice and failed to demonstrate the alleged benefits of the rule by neglecting

to assess the harmfulness of likely substitute products. In the aftermath of the Court's decision, the 1989 asbestos regulation only bans new uses of asbestos in products that would be initiated for the first time after 1989 and bans the following specific asbestos-containing products: flooring felt, rollboard, and corrugated, commercial, or specialty paper (Crane & Malott, 2011).

In 1986, the EPA began enforcement of the Asbestos Hazard Emergency Response Act (AHERA), signed into law as Title II of the TSCA. AHERA required that all school buildings in the United States be inspected for asbestos-containing materials, that the location and amount of such materials be documented, and that emissions of fibers from such materials be prevented (EPA, 1986). The Asbestos School Hazard Abatement Reauthorization Act (ASHARA), adopted in 1990, amended AHERA to require accreditation for individuals performing asbestos inspections and abatement projects in school, commercial, and public buildings (EPA, 1990).

AHERA tasked the EPA with developing a model plan for states for accredited persons conducting asbestos inspections and corrective-action activities in public and commercial buildings. EPA's model accreditation plan (MAP) was published in 1987 (EPA, 1987). Although the MAP included state-of-the-art abatement practices, including the construction and use

of barriers and decontamination enclosure systems during asbestos removal activities, the MAP does not apply to industrial work sites that are not accessible to the general public. Thus, the use of walk-in, negative pressure enclosure and containment systems were not commonly used at industrial facilities prior to the early 1990s. Glove bags have been used as a source control during the removal of pipe insulation as early as the mid-1980s. Although the use of glove bags was approved by OSHA for smallscale, short-duration pipe insulation removal activities, glove bags do not completely contain airborne asbestos since a negative pressure within the glove bag cannot be maintained without the glove bag collapsing. Furthermore, amosite does not absorb water, thus, wet methods have limiting effectiveness on controlling airborne amosite fibers. In a 1990 study on the efficacy of glove bag containment, NIOSH reported that it is essential to provide backup protection for workers due to the uncertainty in controlling exposures during the use of glove bags (NIOSH, 1990).

Asbestos at Superfund Sites

The EPA also regulates asbestos under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), enacted by Congress in 1980. CERCLA, often referred to as Superfund, provides that the term "hazardous substance," as contemplated by the Act, includes any hazardous pollutant identified in Section 112 of the Clean Air Act, which incorporates asbestos. CERCLA authorizes the EPA to ensure that entities responsible for releasing hazardous substances into the environment cooperate in shortterm removal or long-term remedial response cleanup efforts. To date, several clean-up sites targeted under CERCLA have been contaminated by asbestos. The EPA has developed a resource entitled "Asbestos Compendium of Technical Resources," to guide investigative efforts at asbestos-contaminated superfund

Texas Asbestos Regulations

The Texas Asbestos Health Protection Rules (TAHPR), aimed at implementing portions of the Texas Occupations Code and limiting public exposure to asbestos, became effective in 1992. The rules define asbestos as including the chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite asbestos varieties in addition to any material containing > 1% or more of any of the listed varieties. The rules likewise define asbestos-containing materials as those materials which contain >1% of any kind of asbestos or combination of asbestos varieties.

The rules also establish licensing and reporting requirements concerning asbestos-related activities. The Texas Department of State Health Services (DSHS) enforces the TAHPR, which apply to public buildings and to persons engaged in asbestos activities within public buildings for any purpose, as well as federal asbestos regulations and requirements. DSHS also conducts inspections and enforces the asbestos NESHAP in Texas, which is currently set at the EPA level (Asbestos Laws and Regulations, n.d.).

Recent EPA Actions and Rules

In December 2020, EPA published its risk evaluation for chrysotile asbestos. EPA evaluated the following categories of conditions of use (COUs) of chrysotile asbestos: importing; processing; distribution in commerce; occupational and consumer uses (use of diaphragms in the chlor-alkali industry, sheet gaskets in chemical production facilities, oilfield brake blocks, aftermarket automotive brakes/linings, other vehicle friction products, and other gaskets); and disposal (EPA, 2020). As a result, EPA (2020) has determined the following conditions of use of chrysotile asbestos to present an unreasonable risk of injury to health to workers (including, in some cases, occupational non-users) or to consumers (including, in some cases, bystanders):

Occupational Conditions of Use that Present an Unreasonable Risk

- Processing and Industrial use of Chrysotile Asbestos Diaphragms in the Chlor-alkali Industry
- Processing and Industrial Use of Chrysotile Asbestos-Containing Sheet Gaskets in Chemical Production
- Industrial Use and Disposal of Aftermarket Automotive Chrysotile Asbestos-Containing Brakes/Linings
- Commercial Use and Disposal of Chrysotile Asbestos-Containing Vehicle Friction Products
- Commercial Use and Disposal of Other Asbestos-Containing Gaskets

Consumer Uses and Disposal that Present an Unreasonable Risk

- Aftermarket Automotive Chrysotile Asbestos-Containing Brakes/Linings
- Other Chrysotile Asbestos-Containing Gaskets



In March 2024, EPA finalized the risk management rule for chrysotile asbestos. The rule prohibits ongoing uses of the only known form of asbestos currently imported, processed and distributed in the U.S. (EPA, 2024). EPA is banning the import of asbestos for chlor-alkali use immediately to close the door forever on the use of asbestos by this sector. The final rule also (EPA, 2024):

- Bans most sheet gaskets that contain asbestos two years after the effective date of the final rule, with five-year phase-outs for sheet gaskets to be used to produce titanium dioxide and for the processing of nuclear material.
- Allows asbestos-containing sheet gaskets to continue to be used through 2037 at the Department of Energy's Savannah River Site to ensure that the safe disposal of nuclear materials can continue on schedule without unnecessarily exposing workers to radioactive materials.
- Bans the use of asbestos in oilfield brake blocks, aftermarket automotive brakes and linings, other vehicle friction products, and other gaskets six months after the effective date of the final rule.



In November 2024, EPA released the final Risk Evaluation for Asbestos Part 2: Supplemental Evaluation Including Legacy Uses and Associated Disposals of Asbestos. For Part 2 of the Risk Evaluation for Asbestos, EPA considered chrysotile (serpentine), crocidolite (riebeckite), amosite (cummingtonite-grunerite), anthophyllite, tremolite, actinolite, and Libby Amphibole Asbestos (and its tremolite, winchite and richterite constituents). Additionally, EPA assessed the relevant conditions of use of asbestos-containing talc because talc has been implicated as a potential source of asbestos exposure. EPA has determined that disturbing and handling asbestos associated with legacy uses, and asbestos as a chemical substance, poses unreasonable risk to human health (EPA, 2024).

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