Additional emission of asbestos results from the use of pre-formed asbestos sections or blocks for insulation of pipes and boilers, and in the use of materials applied in a wet or slurry state. Asbestos cement products including roofing shingles, building boards and drain pipes have sealed surfaces and do not dust easily. However, emissions may result from their cutting or breaking. Other asbestos products used in construction and industry are asbestos paper, blankets, rope and sealing compounds. Emissions resulting from the use of these products depend on the type of material being fabricated, the amount and character of fabrication required, the location and nature of the site and the quantity of material being processed. Tightly bonded composites will have less potential for emissions than those loosely bound. See R.116 and following testimony of Pundsack; Thompson, Ex. 5, Asbestos as an Urban Air Contaminant; Ex. 4, Selikoff, Asbestos, "Environment", March, 1969. Twenty-seven industrial concerns in Illinois manufacture products using asbestos. Exhibit 20, Harwood, p. 56. Asbestos products are used in virtually all building construction and utility installation.

A particularly obnoxious source of asbestos emission with extreme difficulty of control is the demolition of existing structures. Asbestos insulation and products present in demolished structures generate substantial emissions into the atmosphere where control is difficult and the impact on persons in the vicinity, both workers and residents, is extreme.

For years, asbestos has been incorporated in building materials. In some forms of insulation and wallboard, the amount present is less than 20% of the total, but other materials consist principally or entirely of asbestos. When a building is demolished, areas of loosened asbestos are open to the ambient air and fibers are emitted. In general, single-family residential structures contain relatively small amounts of asbestos insulation. Demolition of industrial and commercial buildings that have been fireproofed with asbestos-containing materials will prove to be an emission source in the future, requiring control measures.

Asbestos is emitted into the atmosphere from brake linings and clutches. While these are unquestionably substantial sources of asbestos emissions in the ambient air, the character and potential of these sources have not been sufficiently documented to a point where we feel they can properly be the subject of regulatory action and control at the present time. Harwood, Ex. 20, p. 22 through 28. See Ex. 8 "Brake Lining Decomposition Products", Lynch, Journal of the Air Pollution Control Association, December 19, 1968.

Having described the principal sources of asbestos emissions we next consider their pathological implications. The Litton Report states, Ex. 3, p. 40: