while we need the membrane filter method as a tool for measurement, this tool is not suitable for enforcement purposes. It is suggested that when the 2 fibers/cc limit takes effect that this will become a most serious problem.

Recommendations should be put into effect on instructions to employees, the use of vacuum cleaners, the use of dust collecting systems, disposal, etc. When these work practices are put into effect the area will be cleaner. It was suggested that the Institute contact the Asbestos Information Association concerning the use of the membrane filter technique for enforcement. (See later section of these minutes concerning Asbestos Information Association.) The Industry must concentrate on collecting, cleaning and housekeeping, using the membrane filter as a tool to see how the levels are being reduced.

One member brought along a work sheet with target dates for completion of various items that will help in meeting the OSHA standards. This is essentially a schedule with dates projected for each step which will move their factory nearer to compliance. The aim is to have the factory at the 2 fiber limit by July 1, 1976. Various critical areas are covered with detailed steps projected to clean up each area. It was suggested that this was alomost necessary for control and would certainly help in proving intent to comply with the regulations.

In another area, a question arose as to what were the Canadian standards. At the present time, there is no national standard in Canada. However it is likely, with the recent furor over asbestos in Toronto, that Canada will be moving to a 2 fiber/cc limit. Upon motion duly made, seconded and unanimously passed, it was

RESOLVED: That the Committee requests guidance from the Board of Directors concerning the problem of the 2 fiber/cc limit and the lack of reliability of the membrane filter method for measurement of fiber counts.

## ASBESTOS FIBERS SHORTER THAN 5 MICRONS

Those promoting standards for the work place and the environment are now expressing concern about the asbestos fiber which is shorter than 5 microns. Their feeling is that fibers shorter than 5 microns are medically significant. There may be a problem with lower efficiency systems filtering out sub-micron material. It may be simpler for sub-five micron particles to by-pass filters and any natural filtration in the human respiratory system and more readily get into the lungs.

It has been stated that in the EPA "No Visible Emissions standard" that there are probably many fibers less than 5 microns that are not visible. In order to measure these fibers one would have to go to electron microscopy. It was stated that a measuring device called the Nucleopore can make measurements down to 0.1 micron. A problem is that industry is having so much difficulty with the standard for particles greater than 5 microns, so what can they possibly do about those shorter than 5 microns? There is no reliable means of gathering sub 5 micron particles in wide usage today. It was suggested that if work practices and control procedures now being put into effect are effective in reducing the 5 micron and larger particle counts down to acceptable levels, that at the same time industry would