

Tests Pave Way for Alternative to Landfill Disposal of ACM

Recent tests of a process to thermally change the structure of asbestos fibers appear to have been successful and within a year may offer an alternative to landfill disposal of asbestos-containing material (ACM). An additional benefit of this process would be the elimination of future liability for the generator from this waste, which currently depends upon the owner or operator of a waste disposal site complying with the provisions of the EPA's National Emission Standards for Hazardous Air Pollutants (NESHAPs).

When NESHAPs, 40 CFR 61, Subpart M, was written, paragraphs 61.152 and 61.156 made reference to "alternative methods" of emission control and disposal for asbestos. Initial results of a demonstration sanctioned by EPA in West Virginia in 1987 indicate that a feasible alternative may be available to meet these requirements as early as the end of 1988.

Vitrifix of North America, Inc. constructed a demonstration "melter" in New Martinsville, W. Va., which conducted tests in June of 1987 that were witnessed by John O. Copeland of the

EPA's Emission Standards and Engineering Division. According to Jack R. Farmer, division director, the results indicated that "the process...continuously produced an asbestos-free product."

Technically, the process involves the electric heating of a glass medium to a molten state. ACM mixed with additional waste glass is processed continuously in the "melter" during a span of 10 to 12 hours. Asbestos is "thermally destroyed" at about 1,700 degrees Fahrenheit—the "melter" operates several hundred degrees above this. At this time only one commercial "melter" has been proven in operation, a 5-ton-per-day unit in Scotland in late 1986. This was developed for the United Kingdom's Department of the Environment and was used at a large single contaminated site.

PLAINTIFF'S EXHIBIT

DOW-1867

Current plans are to build several plants in the Northeast and on the West Coast, areas where disposal costs at landfills can be from \$80 to \$100 per cubic yard. At these prices, according to Dr. David Roberts, executive vice president of Vitrifix, the economics will make these pilot plants viable and profitable. If all permits and other government paper requirements can be processed with no major snags, the first chosen site can be operational by the end of 1988 or during the first quarter of 1989. It would have a capacity of about 50 tons per day.

In a letter to Roberts dated Nov. 25, 1988, the EPA stated that it *would not* be a violation of NESHAPs regulations for asbestos waste disposal if a generator delivered ACM to such a facility for processing. Additionally, the EPA is considering making new rules that would encompass defining such a "melter" as an active waste disposal site for asbestos.

Also, Roberts has stated that the end product (solidified asbestos/glass

material) will have some low-grade commercial applications such as gravel to mix with asphalt, the "grit" on sandpaper and as a filter bed medium.

The implications of this process for "destroying" asbestos generated in major urban areas should be significant. If the initial plants prove viable and a nationwide network of "melters" is developed, limited landfill resources could be freed for other uses.

By John Dietrichs, Asbestos Abatement Services, Inc.

Issue Highlights:

Government Resources
State Accreditation
Training Department News
NAC's Bulletin Board
National Office Move

Reprinted from N.A.C. Council Currents

Page #1 May/June 1988