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**NEW RESEARCH IS QUANTIFYING ENVIRONMENTAL
BENEFITS OF APPLIANCE INSULATION**

Washington, DC (July 28, 2005) -- New research shows that substantially less of the fluorocarbons used in the foam insulation of refrigerator/freezers are emitted during the disposal process typically used in the U.S than previously assumed. While the energy efficiency of refrigerator/freezers is the most visible environmental impact, this new research is aimed at quantifying the environmental effect of these appliances at disposal.

In the U.S., fluorocarbon blowing agents are used in the manufacture of the insulation foam which is encased in the cabinet walls of refrigerator/freezers. The research conducted by the Appliance Research Consortium (ARC) and supported by the Environmental Protection Agency (EPA) and the Alliance for the Polyurethanes Industry (API), is part of an ongoing program designed to determine the environmental fate of blowing agents in the disposal and shredding process in the U.S., including the direct emissions, as well as the “attenuation” or degradation of blowing agents in landfills. Previous assumptions have been that 100% of the blowing agent is released into the atmosphere upon disposal of refrigerator/freezers in the U.S., however, this study indicates that, on average, only 25% of blowing agents are released at the time of shredding.

“Appliance manufacturers have been leaders in deploying ozone-friendly refrigerants and foam blowing agents while increasing the energy efficiency of their products,” said Jeff Cohen, Chief of the Alternatives and Emission Reduction Branch at EPA. “This study is part of a continuing partnership to not only address emissions of ozone depleting chemicals from older equipment, but to also minimize atmospheric emissions of the alternatives through responsible use and innovative technologies.”

This study has also found that:

- virtually no blowing agent is released during the life of the refrigerator because the foam is encapsulated inside the appliance walls and the diffusional transport of fluorocarbons in the rigid foam is very slow.
- if attenuation is occurring in landfills, it is possible that a significant fraction of the blowing agent, in particular CFC blowing agents, may be degraded within the waste layers of a landfill and never be released to the atmosphere, which further diminishes the ozone depleting effect of the foam

Further work is necessary to determine the breakdown products of shredded foam in landfills and the capacity of landfills to absorb these chemicals.

Research contractors W.Z. Baumgartner & Associates determined the representative size of shredded foam from various U.S. scrap yards, and the Technical University of Denmark conducted the chemical analyses for this project.

This research will be presented at API's Polyurethanes 2005 Technical Conference & Trade Fair, October 17-19, 2005, in Houston, Texas. A full summary of the conclusions and details of the research can be obtained in the Publications section of www.aham.org. For information on stratospheric ozone protection, visit <http://www.epa.gov/ozone>. More information on the API Polyurethanes 2005 Technical Conference & Trade Fair can be found at <http://www.polyurethane.org>.

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The Appliance Research Consortium (ARC) is incorporated as a subsidiary of the Association of Home Appliance Manufacturers (AHAM) and is a partnership of U.S. appliance manufacturers, the U.S. Department of Energy (DOE) and the Environmental Protection Agency (EPA) to address pre-competitive appliance technology issues.

The Association of Home Appliance Manufacturers (AHAM) is a not-for-profit trade association representing manufacturers of major, portable and floor care home appliances, and suppliers to the industry and is headquartered in Washington, DC.

You can visit the AHAM web site at <http://www.aham.org>

API promotes the sustainable growth of the polyurethane industry, in accordance with the principles of Responsible Care®, by identifying and managing issues that could impact the industry in cooperation with user groups. Its 70 members are U.S. producers or distributors of chemicals & equipment used to make polyurethane or are manufacturers of polyurethane products. API is a business unit of The American Plastics Council (APC). APC advocates unlimited opportunities for plastics and promotes their economic, environmental and societal benefits. Plastics: A World of Unlimited Opportunities. Plastics Make It Possible®