



August 26, 2003

Mr. Richard Karney, P.E.
ENERGY STAR Program
U.S. Department Of Energy
1000 Independence Avenue, SW
Washington, DC 20585

RE: Final ENERGY STAR Windows Criteria Change 2003

Dear Mr. Karney,

Congratulations on the adoption of new standards for windows under the Energy Star program. The Vinyl Institute (VI)¹ is supportive of these new standards which will help improve energy efficiency.

Although the new standards have been finalized and published, the VI respectfully requests that the Department of Energy (DOE) place this letter in the public record for the 2003 windows criteria change and publish it along with the public comments already received on its Windows Criteria Internet Page.² The VI does not seek to revisit the debate surrounding DOE's acceptance of the 2003 criteria. Rather we seek to rebut thinly veiled attempts to discredit the excellent energy efficiency record of vinyl windows with incorrect information on the environmental performance of vinyl products and vinyl windows.³

¹ The Vinyl Institute, Inc. (VI) is a U.S. trade association representing the leading manufacturers of vinyl, vinyl chloride monomer, vinyl additives and modifiers, and vinyl packaging materials. The Institute has a dual charter to promote and protect the industry and the markets it serves. The VI's mission is to gather and communicate technical information to support the responsible manufacture, use and disposal of vinyl products, to build recognition among a wide range of stakeholders on the benefits and value of vinyl, and to maintain a level playing field with other materials. VI member companies include: Borden Chemicals and Plastics Limited Partnership, CertainTeed Corporation, The Dow Chemical Company, Formosa Plastics Corporation, U.S.A., Kaneka Delaware Corporation, Georgia Gulf Corporation, Oxyvinyls, LP, PolyOne Corporation, and Shintech, Inc.

² http://www.energystar.gov/index.cfm?c=revisions.windows_spec.

³ Voreis, Richard D. Consulting Collaborative, March 26, 2003, Comments on Proposed Energy Star Requirements, Also Aluminum Extruders Council, June 21, 2002

At least one commenter cited concerns about vinyl and dioxin emissions⁴. Attached is an inventory of dioxin sources generated by USEPA.⁵ Processes involved in generating or reprocessing many materials used in building and construction are present in this inventory. The Department should be aware that almost any process that involves combustion or highly elevated temperatures will generate some dioxins.

On the other hand, the department should also note that dioxin emissions have declined by over 90% in the past 15 years and that most industrial sources are well-controlled. This should be particularly clear with respect to the dramatic reduction in dioxin from incineration as a result of the application of modern technology. At the same time, use of vinyl has soared.⁶ The largest current source of dioxin is open burning of trash, which is not an issue for windows.⁷

Several comments included claims that plasticizers can leach out of vinyl products, posing a hazard to consumers. Plasticizers are NOT used in rigid vinyl applications such as windows, although they may be present in some weather-stripping. Furthermore, plasticizers of this type have been used safely for decades in FDA approved medical devices.⁸

As a thermoplastic, vinyl is easily recyclable by grinding and remelting. There is currently a lively and competitive business based on recovery of waste materials from the manufacture of windows and its reuse in windows or other PVC applications. A list of recyclers is available at www.vinylbydesign.com. Seventy-five percent of vinyl is used in long-lived building products such as pipe, siding and window frames. These vinyl building products are still in use and generally unavailable for recycling; however, when these products have served their useful life, there are no unique barriers to the recycling of PVC compared with other building materials.

⁴ Voreis,

⁵ Database of Sources of Environmental Releases of Dioxin-like Compounds in the United States," US Environmental Protection Agency, <http://www.epa.gov/ncea/dioxindb.htm>

⁶ The Vinyl Institute, The Facts About Vinyl and Dioxin, May 2003.

⁷ Database of Sources of Environmental Releases of Dioxin-like Compounds in the United States," US Environmental Protection Agency, <http://www.epa.gov/ncea/dioxindb.htm>

⁸ FDA, Safety Assessment of Di(2-ethylhexyl)phthalate (DEHP) Released from PVC Medical Devices, <http://www.fda.gov/cdrh/ost/dehp-pvc.pdf>

I would also refer you to life cycle analyses conducted regarding vinyl building products, including windows.⁹ Should you wish to discuss the environmental impacts of vinyl further, please call me at 703-741-5665.

Sincerely,

A handwritten signature in black ink that reads "Tim Burns". The signature is written in a cursive style with a long, sweeping underline that extends to the left.

Tim Burns
President

⁹ Norris, Greg and Peter Yost, A Transparent Interactive Software Environment for Communicating Life Cycle Assessment Results: An Application to Residential Windows, Journal of Industrial Ecology, Volume 5 no 4. MIT Press Fall 2001 http://mitpress.mit.edu/journals/pdf/jiec_5_4_15_0.pdf