

## **CORPORATE POSITION STATEMENT**

05 August 2003

## TRANE'S POSITION ON UV-C LIGHTS

Trane/American Standard has been studying the potential effectiveness of UV-C ultraviolet light technology for the purpose of improving indoor air quality ("IAQ"). Experts involved in the study of IAQ agree that it is a complex, multifaceted issue. As such, no single "silver bullet" solution exists capable of resolving every IAQ problem.

Some equipment manufacturers, dealers, and suppliers in the HVAC industry have adopted the use of UV-C lights as a proposed solution to microbial growth issues related to IAQ in buildings. Trane/American Standard has reviewed the available technical data and a limited number of independent studies conducted to date to determine its practicality and effectiveness to prevent or inhibit microbial growth in buildings. While science supports the fact that with sufficient time and intensity (dose), UV-C light can harm microbes, Trane/American Standard has concluded that:

- UV-C light is effective in reducing microbial growth on stationary surfaces given sufficient dose;
- UV-C light has little effect on reducing many airborne microbes in ducted systems,
   particularly with respect to the spore forms of microorganisms;



## **CORPORATE POSITION STATEMENT**

- UV-C light has no effect on microbial growth in areas of a building not directly illuminated by UV-C lights.
- Claims that UV-C lights keep the interior surfaces of equipment and duct systems clean are anecdotal and not supported by qualified, third-party research at this time.

Consequently, Trane/American Standard does not recommend the use of UV-C lights in HVAC systems as a remedy or a means of preventing microbial growth in buildings.

In addition, exposure to high-intensity UV-C light can seriously damage polymeric materials (e.g., electrical insulation) commonly found in HVAC air distribution systems.

Users of this technology must also be aware that exposure to high-intensity UV-C light poses a personal danger to installers and maintenance personnel. Environmentally responsible disposition of mercury-containing UV-C bulbs is required.

For commercial customers who, despite Trane/American Standard's recommendation and after considering the risks and limited benefits, insist on including UV-C lights, Trane/American Standard will offer UV-C lights as a factory-engineered and installed option in some commercial equipment. Only in this manner can Trane/American Standard ensure that the UV-C lights are properly applied and installed to prevent potential damage to the equipment and injury to users. Improperly installed UV-C lights in Trane/American Standard equipment may adversely affect the equipment's performance and pose a hazard to the user. Currently, Trane does not plan to offer UV-C lights for residential applications.



## **CORPORATE POSITION STATEMENT**

Trane/American Standard continues to advise that the best method to inhibit microbial growth in HVAC equipment is to **keep the air conveyance path clean, and to prevent standing water**. Regular service and maintenance will serve to inhibit microbial growth within equipment and maintain system performance.

Trane/American Standard encourages and supports further research and study on the efficacy of UV-C light and other technologies intended to improve IAQ and system performance. Trane/American Standard will continue to be an industry leader on IAQ issues and invites its customers, business partners, and associates to learn more about IAQ issues at www.trane.com.

###

American Standard is a global manufacturer with market-leading positions in three businesses: air-conditioning systems and services, sold under the Trane® and American Standard® brands for commercial, institutional and residential buildings; plumbing products, sold under such brands as American Standard® and Ideal Standard®; and vehicle control systems, including electronic braking and air suspension systems, sold under the WABCO® name to the world's leading manufacturers of heavy-duty trucks, buses, SUVs and luxury cars. The company employs approximately 60,000 people and has manufacturing operations in 27 countries.

For more information, reporters may contact Lisa Glover, (732) 980-6048, <a href="mailto:lglover@americanstandard.com">lglover@americanstandard.com</a>, or Shelly London, (732) 980-6175, <a href="mailto:slower@americanstandard.com">slower@americanstandard.com</a>, or Shelly London, (732) 980-6048, <a href="mailto:lglover@americanstandard.com">lglover@americanstandard.com</a>, or Shelly London, (732) 980-6048, <a href="mailto:lglover@americanstandard.com">lglover@americanstandard.com</a>.