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NIBCO

THE FUTURE OF FLOW CONTROL – FOR OVER 100 YEARS

September 19, 2005

To: Wholesale Sales

From: Robert Vick

Re: **White Paper on Green Buildings**

Today we are beginning to see the emergence of a new trend that eventually will change how all buildings are built and maintained. The name of this new concept is the Green Building.

A green building is exactly what you would think it would be - a building that is environmentally correct in every way. One whose design and construction practices significantly reduce or eliminates the negative impact of buildings on the environment and the occupants.

Green building has generally been regarded as a fringe concern, important to only hard-core environmentalist. But with steady increasing energy prices, many Americans led by the boomer generation that brought us Earth Day back in 1970 are thinking harder about how to cut energy usage and increase the protection level of the environment.

In the U.S., buildings account for:

- 36% of total energy use
- 65% of electricity consumption
- 30% of greenhouse gas emissions
- 30% of raw materials use
- 30% of waste output
- 12% of potable water consumption

As you can see, buildings have a huge impact on the world around us. Green buildings can protect our ecosystems, improve air and water quality, reduce solid waste, and conserve our natural resources.

Americans are also looking twice at green buildings because they have become concerned about indoor air problems linked to toxic chemicals found in some building materials, carpets and furniture.

How does a building become a green building? Through design and construction that concentrates on:

- Conserving water
- Reducing electricity and energy consumption
- Reducing the depletion of natural resources
- Reducing pollution, acid rain, smog and potential of global warming
- Reducing ozone depletion
- Improving indoor environmental quality

Who determines whether a building is considered green or not? This is done by the U.S. Green Building Council which was formed in 1993.

The U.S. Green Building Council is a national non-profit organization. It is made up of concerned volunteers who operate on consensus principles. The diverse membership includes architects, engineers, construction companies, local, state and federal officials, utility companies, universities, manufacturers - almost anyone that has anything to do with creating a building and who wants to be involved in protecting the environment.

USGBC's mission is to be the nation's foremost coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable and healthy places to live and work.

USGBC recognized that there needed to be establish guidelines so that building owners would have a roadmap by which to make their buildings a green building. Consequently in 1998, the USGBC established the Leadership in Energy and Environmental Design (LEED) as the official guideline/rating system. This led to a certification process that was established in 2000. The LEED certification/rating system is a national consensus-based, market driven building rating system designed to accelerate the development and implementation of green building practices. In short it is a leading-edge system for designing, constructing and certifying the world's greenest and best buildings. Under the supervision of the USGBC, the full LEED program offers training workshops, professional accreditation, resource support and third party certification of building performance.

LEED was created to:

- Use as a tool for green design guidelines
- Stimulate green competition
- Raise consumer awareness
- Provide definitive standards for what constitutes "green building"
- A measurement system for rating facilities as "Green"
- Facilitate positive results for the environment, occupant health and financial return
- Establish market value with recognizable national "brand"
- Transform the marketplace

The LEED rating system is divided into five sustainable categories of concern. Each of the five categories carry a differ weight of importance. The categories and their corresponding weight are as follows:

- Energy and Atmosphere ---27%
- Indoor Environmental Quality ---23%
- Sustainable Sites ---22%
- Materials and Resources ---20%
- Water Efficiency ---8%
- Plus you can get extra points through "Innovation and Design"

Within each category LEED establishes specific goals by which to measure the owner's intent to qualify for a green building certification.

For example, if an owner chooses to use waterless urinals instead of standard urinals or alcohol wipes instead of sinks and paper towels then he gets points for saving water. Substituting push or press fittings for sweat fittings (which uses gas to install and gives off toxic fumes as a by product) could qualify those products for energy and atmosphere points.

Why would an owner choose to have a "Green Building"?

- To demonstrate responsible community leadership
- Gain lower operating cost
- Provide high-quality working environment
- Tax incentives
- Mandate by governing jurisdiction

The last reason, "mandate by governing jurisdiction" may become the biggest reason. Numerous city, state and federal laws and directives are being passed that require that future buildings meet some level of green. This month the Governor of Michigan declared that all new buildings for state agencies, universities, and community colleges be LEED certified. Michigan joins California, Oregon, Maine, Massachusetts, Connecticut, the U.S. Department of State, EPA, GSA, DOE, the US Army, Air Force and many universities and private companies in mandating green buildings.

As more and more architects and engineers are required to design green buildings contractors will be forced to quickly learn how to build these buildings. Individual contractors will have to be accredited by LEED in order to meet the building owner's qualification requirements. And, as an upstream supplier to the contractor, we will be required to provide "green" support as well.

The trend is to more green building investments by more owners. Green Building is already part of the way some of our contractors do business and it will become even more important in years to come. For NIBCO to stay on the leading edge of industry trends, we must recognize the importance of the green movement and be educated in how we can participate in the changes that it will bring. More on green buildings will be forth coming as we work towards preparing you for the future.

A handwritten signature in black ink, appearing to read "Robert Vick". The signature is written in a cursive, flowing style with some loops and flourishes.

Robert Vick
Vice President
Commercial / Industrial