HUMIDITY, TRANSMISSION, & THE WINTER CHALLENGE

HVAC EXPERT SERIES

BEYOND CLEAN

David N. Schurk DES., CEM., LEED-AP., CDSM., CWEP., SFP., CIAQM., HCC..

Beyond Clean HVAC Expert Series:

HUMIDITY, TRANSMISSION, & THE WINTER CHALLENGE

David N. Schurk DES., CEM., LEED-AP., CDSM., CWEP., SFP., CIAQM., HCC..
Director of Business Development | Global Plasma Solutions

Winter is right around the corner, and with colder weather comes the traditional cold and flu season. Unfortunately, this year we are still amid the COVID-19 pandemic which continues to wreak havoc across the globe. It is known that colder weather is attributed to higher incidences of certain airborne illnesses. It's also proven to result in drier air (lower relative humidity) both outdoors as well as indoors. So, what correlation can be drawn between the timing of these two seemingly disparate wintertime occurrences? Past research has shown that decreased humidity is linked to increased transmission rates of various respiratory diseases, such as influenza. Scientists and healthcare professionals believe the same is true in the case of the virus SARS-CoV-2, which causes the disease COVID-19. It is feared that the winter months ahead may result in a new surge of cases, as spikes in infections across the Northern Hemisphere has already begun to occur. People spend 90% of their time indoors, perhaps even more during winter. At the same time, relative humidity inside buildings may fall below 20% from their summertime highs, closer to 50%-60%. It has been suggested that one way of maintaining safe and healthy indoor conditions is to add humidification systems that can increase these wintertime lows to levels approaching 40% if possible. Maintaining adequate indoor air humidification has been shown to effectively decreases the transmission of infectious organisms known to be airborne, and those thought to travel primarily through contact transmission. Balanced indoor humidification may be an effective strategy to improve the health of a building's occupants during the challenging months ahead.

Questions? Contact David at: david.schurk@globalplasmasolutions.com

Beyond Clean HVAC Expert Biography:

DAVID N. SCHURK DES., CEM., LEED-AP., CDSM., CWEP., SFP., CIAQM., HCC..

David serves as Director of Business Development for Global Plasma Solutions, headquartered in Charlotte NC (USA). In previous positions he worked for three of the world's largest HVAC manufactures, including Carrier, Daikin, and Trane. David is a Licensed Designer of Engineering Systems with over 38-years of experience in the design and analysis of heating, ventilating, and air-conditioning systems for a variety of market sectors, with a special focus on hospital/healthcare environmental control and indoor air quality.

He is also an ASHRAE Distinguished Lecturer, a Certified Energy Manager (CEM), a Certified Demand Side Manager CDSM), a Certified Water Efficiency Professional (CWEP), a Certified Sustainable Facilities Professional (SFP), a Board Certified Indoor Air Quality Manager (CIAQM), and is Health Care Constructor Certified (HCCC).

He is active in the American Society for Health Care Engineering (ASHE) as Member and serving on the ASHE Editorial Advisory Board, the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) as Member and past Chapter President, the American College of Healthcare Executives (ACHE), the Association of Energy Engineers (AEE), and many other national and regional industry associations.

David has authored numerous technical articles for industry magazines and journals including ASHRAE, Medical Construction & Design, Healthcare Design, Engineered Systems, Heating-Piping & Air-Conditioning, and others. He is a featured presenter at national, international, and regional industry associations and events.

david.schurk@globalplasmasolutions.com | 920-530-7677

BEYONDCLEAN