HOW ENVIRONMENTAL CLIMATE IMPACTS EMPLOYEE HEALTH AND PRODUCTIVITY

BY MICHAEL POPKE

he recent pandemic triggered heightened awareness of indoor air quality in commercial workspaces, which is why it's vital for business owners to reevaluate their current HVAC system to ensure it is operating efficiently by properly cleaning and recirculating the air.

"You need an environment that is healthy and conducive to people being indoors, which plays a significant role in employee health, comfort, and productivity," says Brad Werlein, senior vice president of the mechanical division at Hooper Corp., a DeForest-based mechanical contractor with a large Midwest customer base. "Before the pandemic, people didn't necessarily make the connection that being in one particular building could put them at a higher risk than if they were in another building.'

HVAC systems do a lot more than maintain indoor air temperature — they regulate humidity and overall air quality, too. Changes in temperature or humidity can be among the most obvious clues the HVAC system might not be working properly, according to Wer-

lein. Optimal humidity in an office setting is between 30% and 60%; humidity levels above 60% promote growth of microorganisms like mold and bacteria, make for uncomfortable working conditions, and could cause condensation issues on pipes and walls over time. On the other hand, in winter months when humidity levels fall below 30%, the risk of respiratory infections increases. Employees are more susceptible to infection when their defense systems (nose, throat, eyes, and skin) are dry from a lack of moisture in

Other potential HVAC malfunctions are less obvious and could quietly be increasing overall operating costs. Werlein recommends biannual (if not quarterly) inspections to make sure a malfunctioning damper, for example, is not bringing in more outside air and forcing the system to work harder - costing more money to operate. Hooper offers planned maintenance programs for HVAC systems in all types of commercial buildings, and he says a well-maintained climate control system can result in average



Indoor air quality is essential for a productive workforce.

energy-consumption cost savings of 15% to

New buildings or renovated workspaces typically are now equipped with products and technology that allow business owners to monitor air quality metrics and comfort levels — and notify occupants to call for assistance at the first sign of a problem.

"Early detection is critical, so you're not running into a situation when on the hottest or coldest day of the year, your HVAC system is unable to keep the environment safe and comfortable," Werlein says. "Regular maintenance along the way will increase system life expectancy and help ensure the system doesn't fail when it's working the hardest on extreme temperature days."

