

Air Purification Keeps Pets and People Happy

Animal odors in a pet care facility can be a turnoff for potential customers, who might perceive the business to have unsanitary conditions.

So Spa Paw & Tail, a pet boarding facility in New Berlin, Wis., is using heating, ventilation and air conditioning (HVAC) air purification technology to control odors, reduce energy bills and prevent potential infectious airborne animal diseases.

The 10,000-square-foot facility accommodates up to 125 dogs and cats in individual guest rooms.

"The sense of smell influences a customer's first impression upon entering a pet business," said Nina Race, president of Spa Paw & Tail. "Bad odors give the impression an establishment isn't clean, even though it might be spotless from a sanitation standpoint.

"Since installing the air purification equipment in our HVAC equipment, odors [in our] greeting and gift shop [areas] have been eliminated," Race said.

Race's first attempt to control odor by introducing more outdoor air through the HVAC systems was successful, but the energy costs were too high.

Action Heating and Cooling in Milwaukee suggested cutting the facility's energy bills by installing air-purification devices on its HVAC coils. Instead of 100 percent outdoor air, which must be expensively heated, cooled and/or humidified, the addition of air purification devices allows for a return to a conventional outdoor air proportion of 15 percent. Meanwhile, the air purifiers eliminate odors and contaminants as the indoor air is recirculated through the HVAC systems.

Action Heating and Cooling installed eight APCO air purification systems by manufacturer Fresh-Aire UV on each of four 7.5-ton rooftop HVAC systems.

The APCO systems combine ultraviolet light and gas-phase carbon media/photocatalytic oxidation technologies to remove microbial and volatile organic compound contaminants, respectively. The UV light kills all types of airborne microbes as they recirculate through the HVAC system.

"We've never had health issues at our facility, but the incorporation of UV as an infection deterrent is a nice backup," Race said.

To further reduce odors, Action Heating and Cooling is scheduled to design an HVAC retrofit of an adjoining 2,000-square-foot small dog area by improving air distribution, incorporating air purification, and adding three heat recovery ventilation rooftop systems by RenewAire LLC for energy savings.



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