

Kitchen Emission Control Systems

SmogHog® Eliminates Kitchen Emissions at Luxurious Sandia Resort and Casino

Located in Albuquerque, New Mexico, the Sandia Resort and Casino is an Indian gaming operation that opened for business in December 2005. The property boasts 135,000 square feet of gaming space, 228 plush guest rooms, eight casual and fine dining restaurants, and spa, golf, convention and live entertainment facilities. When guests noticed odors and fumes from the restaurant kitchens coming into their rooms, Sandia Resort & Casino contacted UAS, now Parker Hannifin to come up with a customized solution.



Focus:

Sandia Resort and Casino

Challenge:

Design a system to prevent kitchen exhaust fumes from reaching hotel rooms

Solution:

SmogHog PSG fume collectors

Impact:

- Eliminated fume-related guest complaints
- Reduced maintenance to free up staff time
- Enhanced building appearance

Challenge

Sandia Resort & Casino has a reputation as a luxurious, relaxing resort. So when guests started complaining about kitchen fumes and smoke in their rooms, management was extremely concerned. The resort did have exhaust fans with grease catchers installed throughout the building, but they required almost constant, time-consuming maintenance. Additionally, the fans detracted from the building’s impressive exterior facade, as they were visible from guest rooms.

Sandia needed a heavy-duty, state-of-the-art kitchen emissions system that would more effectively remove pollutants from the air, while conforming to the building’s structural and aesthetic requirements. With the resort and casino in operation 24 hours a day, Friday through Sunday, and 20 hours on other days, Sandia also required a system with minimal downtime and flexibility for cleaning times. Equipment installation would be a challenge given the extremely high altitudes and limited space on the resort’s multi-tiered roof. In addition, the system had to comply with federal, state and local standards.

Solution

When the issue of food odor was brought to management’s attention, they investigated and presented several options to the Pueblo of Sandia Tribal Council. The Council chose to work with Parker Hannifin based on multiple criteria, including the quality and efficiency of SmogHog products, the high level of service, savings on labor costs and Parker’s ability to customize the equipment to the resort’s exterior. Given the importance of guest comfort and poor performance of the existing exhaust fans, Sandia Resort & Casino management wanted to work with someone they could trust to implement a tailored and effective solution. They approached Parker Hannifin because of the manufacturer’s national reputation and track record with other restaurant applications.

After a thorough review of the existing kitchen emission collection system, along with the desired end-result requirements, Parker custom-designed and engineered 11 SmogHog PSG fume collection units to fit Sandia Resort & Casino’s needs. Facilities staff worked directly with Parker to design the optimal units for each kitchen.



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The SmogHog kitchen emission system uses electrostatic precipitation technology, or ESP, to filter odors and electrically charge contaminants, which are then captured onto aluminum collection plates.

SmogHogs do not require costly filter replacements. Instead, units are programmed to shut down for one hour each day for self-cleaning. Parker tailored this maintenance schedule according to staff downtime. This continuous cycle allows them to serve guests night and day. Additionally, the SmogHogs use the existing supply of hot water, saving the resort and casino the costs of sourcing and heating additional resources.

The SmogHogs at Sandia Resort & Casino were custom designed to fit the resort's unique space and architectural requirements. Each unit was split into multiple parts to accommodate the resort's roof load specifications, and placed in locations that made them easily accessible for routine servicing. The units were also painted to blend into the building's unique southwest facade.

Above all, Parker Hannifin worked with Sandia Resort & Casino to make sure every step of the planning and implementation process went smoothly. In addition to their engineering house, Parker was an integral part of the layout, installation drawings, contractor meetings and startup service—including finding the largest crane in New Mexico to lift the rooftop units into place. After installation, Parker continued follow up with general startup assistance and application engineering advice.



Parker Hannifin and Sandia Resort & Casino focused on architectural elements to blend the units in with the building façade.

Impact

"SmogHog is an excellent product," notes Mark Cuzzola, facilities manager, Sandia Resort & Casino. "While our original exhaust fans were working to some extent, they weren't nearly as effective as the SmogHogs. These new units allow our HVAC team to concentrate on other areas, as wash cycles and operations are all computerized. The HVAC staff only needs to perform routine maintenance and exchange cleaning solution once a month. These units have shown to be low maintenance and have already provided savings in labor costs compared to the old exhaust fans. The additional savings have been in these units not requiring monthly filter changes."

"We looked at the required investment in SmogHog equipment and decided it was definitely worth it, considering the long-term savings" says Paul Collins, superintendent of facilities, Sandia Resort & Casino. "The Council wanted results, and to date, they have been exceptional. Since installing the SmogHogs, there have been zero complaints from guests regarding food odor or any type of aroma from the kitchens. The systems clean all the exhaust, and only fresh clean air is exhausted. Installing the SmogHogs has also given us some breathing room in terms of maintenance. We don't spend nearly as much time on upkeep and cleaning as we used to with the fans."

"Not only was the Parker Hannifin team very attentive and great to work with, they helped us come up with a tailored solution that does exactly what we need it to."

