



■ CASE STUDY =

WHEN ALL ELSE FAILED, CSI-STYLE CRIME LAB SOLVED FAULTY EXHAUST PROBLEM WITH AEROSEAL

Odor From Decomposing Bodies Permeated The Miami Valley Autopsy Lab And Its Adjacent Offices – Aeroseal Saved The Day For Engineers...And Other Occupants

When decomposed bodies are found in Ohio's Montgomery County, they wind up at the Miami Valley Regional Crime Lab for autopsy. And for years, occupants of the three-story facility knew whenever a new body arrived because the strong smell of the rotting corpses would permeate the building. Despite spending hundreds of thousands of dollars over a period of years trying to solve the problem, nothing seemed to work. Replacing the HVAC system didn't work. Nor did installing high-efficiency fans, adding an exhaust system incinerator, insulating the walls or any other strategy used so far.

Finally, the third engineer entrusted with solving the dire problem saw an episode of PBS's "Ask This Old House" that included a feature on aeroseal technology, a duct sealing process that seals leaks from the inside of the ductwork. He believed he might have finally found an answer to the problem.

In Brief

Building: Miami Valley Regional Crime Lab

Location: Montgomery County, Ohio **Aeroseal Contractors:** Service-Tech

Goal: Improve ventilation / eliminate odors **Before Aeroseal:** 988 total CFM of leakage

After Aeroseal: 43 CFM of leakage

Results: 96% reduction in leakage; elimination of any migration of odors throughout the building



Once hired, it took the aeroseal experts at Service Tech Corporation just two days to completely seal the supply and exhaust ductwork using aeroseal. Temporary access holes were cut into the ducts, and the aerosol-based sealant was blown into the ducts' interior.

The microscopic particles of sealant do not coat the walls of the ductwork but instead, stay suspended in air until they come across a leak. At this point, they accumulate around the edges of the leak and then to other sealant particles until the entire hole is sealed.

The final report generated by the computer-controlled aeroseal system showed a 98% reduction in leakage. More importantly, the facility director – and the building's other occupants – declared the problem 100% solved!

"I knew we had leaks in the ventilation system that allowed the spread of odor throughout the entire building, but there was no way we could access and seal the ductwork without completely tearing down the entire structure. Over several years, we spent well over a hundred thousand dollars in new equipment and outside consultants trying to solve the problem, but nothing worked. Then we tried aerosealing, and the problem was solved."

"I wish all of our projects went this fast and smooth. The aeroseal team was in and out in just a couple of days. The fact is, any ductwork that has been installed a while ago has leakage issues. I'm looking at using aerosealing the ductwork throughout many of our facilities."

Bill Epperson, Associate Engineer Montgomery County Government

"Aerosealing the ductwork not only solved our critical ventilation issue, but it allowed us to lower fan speeds while increasing HVAC efficiency. There is no doubt that the duct sealing process had a significant impact on reducing energy usage and saving the county money."

Jeff Hatton, Energy Management Montgomery County Government



Aeroseal – The Technology

- Developed at Lawrence Berkeley National Laboratory in 1994.
- Research for aeroseal technology was partially funded by the U.S. Department of Energy.
- Aeroseal is the only duct sealant technology that is applied from the inside of the duct system. It is delivered as a non-toxic aerosol mist that seeks out and plugs leaks.
- Aeroseal has proven to be 95% effective at sealing air duct leaks.

For more information on this sealing project or about Aeroseal in general, contact Aeroseal at (937) 428-9300. You can also visit the Aeroseal website at www.aeroseal.com.