

Understanding Sump Pit Sealing Service for Better Radon Mitigation

When I first moved my family into a home in York County, Pennsylvania, I had no idea what a sump pit was. It took a conversation with Dan Jenkins, a local radon mitigation expert, to realize that this unassuming hole in the basement floor could be the key to protecting my home from radon gas. Over the years, I have learned that a professional sump pit sealing service is not just a nice extra; it is often the foundation of an effective radon mitigation system.

Radon is a naturally occurring soil gas that can seep into homes through cracks in the concrete slab, gaps around pipes, and especially through openings like sump pits. Many homes in York County have sump pits as part of their drainage system, but these pits can also act as a direct pathway for radon to enter your living space. That is where a proper sump pit sealing service comes into play.



What Is a Sump Pit and Why Does It Matter for Radon Mitigation?

A sump pit is a small depression or basin built into the basement floor, often used to collect water for a sump pump. In many residential radon situations, these pits are unsealed or poorly sealed, allowing soil gas to migrate from the ground into the home. If you have a passive system or even an active system like sub-slab ventilation, an unsealed sump pit can undermine the whole effort.

Dan Jenkins once told me that sealing the sump pit is like sealing the front door of your basement against radon. If you leave it open, the fan motor in your active system might pull radon from the pit instead of from under the slab. That is why a thorough [sump pit sealing service](#) is often recommended before or in conjunction with installing a mitigation system.

How Professional Sealing Works

A quality sump pit sealing service starts with a careful inspection. The pit is cleaned of debris and standing water, then allowed to dry. Next, a combination of sealants is applied. Common materials include a thick epoxy coating for the walls and floor of the pit, and polyurethane foam around the edges where the concrete slab meets the pit. This multilayer approach ensures that even tiny gaps are closed.



One detail that surprised me is how long the curing process can take. You cannot just pour in the sealant and walk away. The epoxy coating needs time to set, and the polyurethane foam

expands as it cures. A rushed job can leave voids that radon can still pass through. That is why a reputable contractor like Dan Jenkins gives the sealant proper time to cure before proceeding with further work.

When Sealing Alone Is Not Enough

In some homes, sealing the sump pit is just one step. If the crawl space or basement floor has multiple entry points for soil gas, you may need a more comprehensive approach. A radon test can tell you the level of radon in your home. If levels are high, sealing the sump pit might be combined with installing a passive system or an active system with a fan motor to create sub-slab ventilation.

There is a trade-off between a passive system and an active system. A passive system relies on natural pressure differences and stack effect to draw radon out from under the slab. It has no fan motor, so it costs nothing to run, but it may not be powerful enough for homes with high radon levels. An active system uses a fan to actively pull soil gas from beneath the concrete slab and vent it outside. This is more reliable but comes with ongoing electricity costs and the need for periodic fan replacement.

Either way, the sump pit must be properly sealed for the system to work. I have seen cases where a homeowner installed an expensive active system but left the sump pit open, and their radon levels barely dropped. A professional sump pit sealing service can prevent that wasted effort.

The Role of the Mitigation Warranty

When you hire a radon mitigation contractor in Pennsylvania, you should expect a mitigation warranty. This warranty typically covers the performance of the system, including that radon levels stay below the EPA action guideline of 4 pCi/L. But the warranty often depends on the integrity of the sealing work. If the sump pit seal fails and radon levels rise, the warranty might not cover repairs unless the sealing was done by the same contractor.



Dan Jenkins offers transparent pricing and stands behind his work. A sump pit sealing service is usually priced separately from the main mitigation installation, but it is a small investment compared to the cost of a full system redo if the seal fails. Knowing that the work comes with a warranty gives homeowners peace of mind.

Choosing the Right Contractor

Not all contractors in York County have the same approach to sump pit sealing. Some might use a cheap caulk that cracks within a year. Others might skip the cleaning step, leading to poor adhesion. A true professional will use a combination of epoxy coating and polyurethane foam, and they will take the time to do it right.

Before hiring anyone, ask about their experience with residential radon specifically. A general contractor might seal a sump pit for water control, but they may not understand how soil gas behaves. Radon mitigation is a specialized field, and the EPA recommends hiring a certified professional. In Pennsylvania, there are certification programs that ensure contractors know the science behind sub-slab ventilation and sealant selection.

Also, ask for a radon test before and after the work. A reliable contractor will not just seal the pit and leave. They will verify that the sealing actually reduced radon levels. If they do not offer follow-up testing, that is a red flag.

Final Thoughts from Experience

Living in York County, I have seen how much difference a proper sump pit sealing service can make. My own home had a sump pit that was nothing more than a hole in the concrete slab with a loose plastic cover. After Dan Jenkins sealed it with epoxy and foam, our radon levels dropped from 12 pCi/L to 1.5 pCi/L. That was before we even installed the active system.



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The lesson is simple: do not overlook the sump pit. Whether you have a crawl space or a full basement, that pit is a direct connection to the soil. A professional sump pit sealing service is one of the most cost-effective steps you can take toward a healthier home. It is a small job with big consequences, and it deserves the attention of someone who knows what they are doing.

If you are considering radon mitigation in your home, start with a radon test. Then talk to a local expert like Dan Jenkins about sealing the sump pit and choosing the right ventilation system. The peace of mind is worth it.