

DATA CENTER CLEANING

Our latest online searches have revealed that everyone with a cleaning company, commercial and residential, are now advertising they clean data centers. It's amazing! The audacity of these types of companies to advertise to complete such a critical type of cleaning is totally irresponsible.

Hiring a data center cleaning company that is not certified, not properly trained, using un-skilled labor, inadequate vacuums, and do not provide particle count readings before and after the job is completed, is extremely dangerous. As the old saying goes; "**Buyer Beware**".

Since there are so many unexperienced data center cleaning contractors out there as outlined above. I would encourage you to ask a lot of questions during your initial phone call to verify their knowledge and experience before you accepted them to be part of your RFP process.

- In an effort to help I have formulated a few questions I would consider asking if I were the purchasing agent, procurement manager, or data a center manager. **These questions will either confirm their experience or reveal they have no idea what they are doing.**
- During your initial call to the contractor ask lots of questions to confirm they have the experience. You should use a line of questioning of the nature of technical jargon, thus testing their knowledge of what a data center is, what it does, the environment, the importance of each piece of equipment, and its function. The purpose of these questions is to confirm their level of expertise & experience and how long they have cleaned data centers.
- Ask the qualifications of their onsite managers supervisor. Confirm they will be on the job from start to finish, and not leaving their employees alone to clean. They should be certified through CompTIA as Network Plus and Security Plus Certified. This way they understand what a data center is designed to do, and the criteria which it takes to clean one. Furthermore, they would understand the security of the data center, the do's and don'ts, what each piece of equipment does in your data center, and how to properly protect it while the cleaning is in progress.
- Ask them if they use their general janitorial cleaning staff, temporary labor companies, or sub-contractors to clean. Most competitors do one or all of these, because they don't have enough steady work to support a full-time qualified staff to complete these jobs.
NOTE: Hiring a data center cleaning company that uses un-skilled labor is irresponsible and is extremely dangerous.
- Proven track record. Ask for a list of references going back many years.
- Confirm they are either data center or cleanroom certified. A data center is classified as a low-level cleanroom. Any room with a controlled environment with strict SOP guide lines is considered a cleanroom, and all data centers have both.

- Ask them to list the SOP guidelines of a data center.
- Confirm the equipment they will be using is certified for the use inside a data center. Ask for cut sheets on all equipment that will be brought into your data center. Confirm they are anti-static, which would include, but not limited to; the mop buckets, mop sticks, vacuums, wet mop heads, extension cords, and In line GFCI power blocks. All of this equipment can cause a static charge even if the server racks are properly grounded. An inexperienced cleaning company would not know this and would not have access to this equipment. These pieces of equipment are designed just for anti-static environments and cost 100% more than your standard janitorial cleaning equipment.
- Ask them to explain their process of how they clean the raised floors and sub-floor.
 - An un-experienced company many use a cleaning chemical called floor stripper (*designed to remove high solid floor finishes, i.e. floor wax*) and a black floor stripping pad to removed dirt and black marks from the surface of the raised floor tiles. They may also use a chemical called baseboard stripper as a pre-spray to remove these stubborn black marks throughout the floor. This aerosol spray can cause system failure since it is sprayed very close to the fronts of the servers, thus being pulled into and across the mother boards. Using these types of chemicals to clean requires a lot of water, and water is dangerous in a data center and can set off alarms false and positive, thus causing automatic system shut downs. These types of chemicals are high alkaline cleaning chemicals and they will leave behind a very high pH residue, that will cause rapid re-soiling. This process should never be used in a data center, and over time will damage the laminate floor tiles, thus causing them to be replaced. The over use of water can cause delamination of the laminate from their backing and causes the tiles itself to swell, making them hard to remove and replace, or worse, making them unable to properly fit back in the grid, thus causing a safety issue with people tripping over the uneven edges.
 - An un-experienced company may use non-approved vacuums cleaners, which are considered by the manufacture as a true "HEPA" vacuum purchased from a janitorial supply house. Beware, these vacuums may be HEPA, but are **NOT Data Center Approved or equipped with anti-static canisters and accessories**, i.e. the hoses, nozzles, round brushes, vacuum heads, and crevice tools. A Janitorial HEPA vacuum cost approximately \$300.00, verses anti-static vacuum with all of the accessories cost well over \$2,000.00. Just the round brushes used to clean around the server racks, the edges, and hard to reach areas ware out very quickly, within a few hours, and the replacement brushes cost is over \$30.00 each. A regular vacuum round brush head cost approximately \$10.00, and is not anti-static.
 - Ask them their cleaning procedure for cleaning the sub-floor. They may not even know what one is. This process is critical, because if you move anything under there you could cause a catastrophic system failure. Furthermore, ask them what their process is in removing the raised floor panels. An unexperienced company will not know the proper process. The last thing you want is the grid system to shift ever so slightly, then the raised floor panels will not properly seat back in the grid or worse, a total collapse of the raised floor grid.

- Ask them if they perform particle count readings before and again after the cleaning is completed. If so, ask them what are their acceptable levels of particles per cubic foot when the job is completed. There is an industry standard and they should know it.
- Ask them what type of particle count reading equipment they use and ask for the cut sheet on this equipment. You want to make sure it comes from a reputable company that specializes in air quality testing equipment, and not from a general tool company, which also sells these readers. Ask them the last time their particle count reader was calibrated. Then ask them to have the calibration company send you directly a copy of that certification. You may be surprised how many companies do not have them calibrated a regular basis. A particle count reading device is completely useless if not calibrated at the very least, annually. They are very complicated to use and require some training to provide the correct results. And, if not properly cleaned after each use they can report false information.
- Do they send all particle count reading reports to you?
- Do they perform the room certification or do they sub-contract that part out? The certification should be completed immediately after the cleaning has been completed and before any IT staff re-enters the room, thus contaminating the room.
- Ask them what protective clothing they will be wearing when they perform the final exit cleaning just before the certification process starts. This phase is critical and without the proper clothing and shoes, the room will not pass the certification. An unexperienced cleaning company would not anything about this.

Why choose RJC Janitorial & Cleanroom Solutions; We have over 30 years of experience in cleaning data centers for some of the largest telecommunication companies in the world, not to mention the US government. So, if they trust us, so should you. Plus, we follow the Federal Government guidelines in cleaning data centers for all of our customers. All of our project managers and onsite supervisors are certified through CompTIA and are Network Plus and Security Plus Certified. They understand what each piece of equipment does in your data center and how to properly protect it while the cleaning is in progress.

All of our cleaning techs are Full Times certified cleanroom cleaners, which makes them over qualified, but is what we use. Our equipment goes through vigorous testing before it leaves our shop. One major part of that test involves us particle count testing each vacuum's exhaust port to ensure we are not just moving the particles around, but removing them. We also perform routine maintenance on these vacuums while the cleaning is in progress. This entails the HEPA vacuums being pulled off line every 2 hours and is retested, and the first stage filter is replaced. This prevents the filtration system from being clogged and not properly removing the dirt, debris, and most importantly, the air borne particles.

These tough standards are unheard in our industry, but what separates us from other contractors. We will work with you and your team to custom design a cleaning program that will keep your data center clean and fits your budget. To talk more about this, please give us a call at 800-582-2105, or visit us online and fill out a request for a quote form at www.rjcenterprises.com and someone will get right back to you.

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