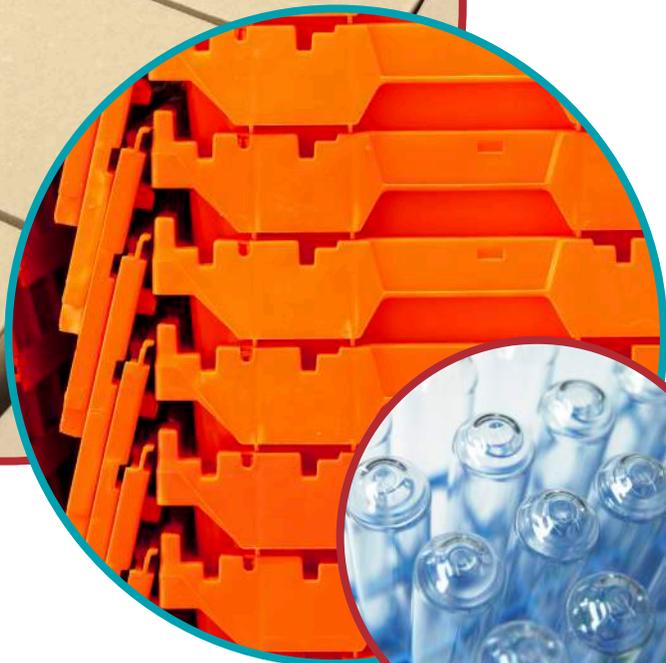


A Practical Guide to Moving to a New Site for Public Health Laboratories:

Additional Tips



APHL ASSOCIATION OF
PUBLIC HEALTH LABORATORIES®

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Table of Contents

Section 1: Advance Prep	3
Pre-move Precautions to Minimize Post-move Hassles.....	6
Section 2: On The Move	8
Section 3: Settling In	9



Planning the laboratory move a year in advance helped the New York State Department of Agriculture and Markets stay organized

In April 2012, APHL published the first *Practical Guide to Moving to a New Site for Public Health Laboratories*. In the three years since then, several APHL member laboratories have had first-hand experiences relocating their operations to more modern, more sophisticated facilities. This follow-up moving guide captures additional lessons learned to help take the stress out of moving day . . . and the weeks and months that follow. As with the first guide, the goal is to help you save time and resources and to have the smoothest moving experience possible.

Section 1: Advance Prep

Relocating a modern public health laboratory is a complex undertaking, which most laboratory professionals will experience only once in their careers. Begin preparing about a year in advance to allow time to work through the state or local government purchasing and bid process and to handle the myriad details — some unexpected — that arise during a laboratory move. As one laboratory director has said, if you want a smooth transition, “plan, plan, plan, plan.”

- **Who’s done this before?** In addition to checking with APHL to identify member laboratories that have moved in recent years, consider contacting local academic and hospital laboratories that have relocated, as well. Colleagues can recommend qualified vendors; share move manuals and scope-of-work language from move contracts; and provide other advice. If funding allows, consider issuing a RFP for a moving consultant. Others have found relocation consultants very helpful.
- **Contracting issues:** It is critical to get the laboratory relocation services and moving contracts right. Therefore, have staff experts review contract scope-of-work language pertaining to their area of expertise, such as chain-of-custody or hazardous waste disposal. Some laboratories have used a relocation services company that then subcontracted with the local moving company. In addition, be aware that either the laboratory or the relocation services company will need to contract (or sub-contract) separately with each equipment vendor before moving instruments under restricted maintenance or warranty agreements (so as not to void the agreements). Vendors may want to package, move and/or revalidate the instruments themselves.

Uncrating

Make sure your contract for moving instrumentation includes uncrating. At least one laboratory discovered the hard way the inconvenience caused by failure to do so.

- **Notify regulatory agencies:** Notify all relevant regulatory agencies — CDC, CMS, EPA, FDA, CAP, DEA, state pharmacy board, etc. — well in advance of a laboratory move and plan for re-licensing and re-accreditation. While some agencies may confer provisional approval for the laboratory to begin accepting samples immediately in its new space, others may require re-inspection before samples can be accepted. Be prepared to provide laboratory floor plans, quality control plans, security plans, etc.
- **Minimize disruptions for clients:** Consider how to eliminate or minimize down time and/or give clients plenty of time to plan around the laboratory’s down time. In some cases, it may be possible to do advance testing for some clients or to plan the move during a slow period for major customers.
- **Keep staff in the loop:** Be sure to keep staff well informed about the new building’s progress, general moving plans and their specific move responsibilities, including knowing what they will have to do to validate laboratory instrumentation after it is relocated. Laboratory scientists should tour their new areas as they are being built to assure the workflow is optimal; it is easier to make changes now than to retrofit later. If key staff members have not received LEAN training before, now is a good time.
- **Prepare staff for culture change:** Acclimating to a new environment with clear separation of “clean” and “dirty” zones, and, perhaps, expanded restricted access zones will be a culture change for many laboratorians, who may be accustomed to wearing lab coats and gloves at their desks and conferring with colleagues in other parts of the facility that may now be off-limits to them. A pre-move orientation is helpful to explain the new work rules.
- **Minimize supplies on hand:** Although it is challenging while a laboratory is operating every day, try to postpone as many reagent orders as possible. Instead, have new stock sent to the new facility. In addition, instruct staff to discard/recycle any superfluous/antiquated office and laboratory materials on hand; obviously, the less stuff you have, the less you have to move. It is a good idea to have extra trash and recycling bins available for laboratory “clean-up days” and to conduct several sweeps of the lab to ensure full compliance.
- **What to do with select agents?** Laboratories that have moved in the post-9/11 era have handled select agents in several different ways: (1) destroyed them and restocked after the move, (2) shipped them to the new laboratory via a certified select agent shipper, such as FedEx, (3) stored them temporarily at another select agent facility, for retrieval after the move, and (4) transported them during the move, with mandated security and safeguards. If select agents are moved, regulatory agencies, including the Centers for Medicare and Medicaid Services and CDC, must be notified well in advance; risk assessments and security escorts may be required.

- **What to do with gases?** As with select agents, some laboratories have chosen not to move cartridges of argon, nitrogen, helium and other gases. Instead, they have chosen to return unused stock to vendors and have a fresh stock of gas at the new facility, ready for use upon arrival.
- **What to do with controlled substances?** If you don't want to deal with the hassle of moving these, consider destroying them too.
- **What to do with forensic samples?** Return as many samples as possible to law enforcement agencies before the move. For remaining evidentiary specimens, such as DWI specimens, you will have to inventory freezers, seal freezers with evidence tape, have staff escort freezers with a constant line of sight so as not to break the chain of custody, and then re-inventory contents in the new space.
- **Identifiable health records:** Confidential health information is subject to HIPAA regulations and must be moved in a secure manner.
- **Don't Throw it All Away. Recycle!** Supply ample recycling bins and encourage staff to recycle whatever they can, rather than sending items to an incinerator or landfill. As noted in the [2012 Practical Guide](#), some unneeded items may be appropriate for donation to local charities. In addition, older, decontaminated biosafety cabinets and other unwanted equipment can be sold as surplus or given to colleges or universities. Remember to check policies for disposition of equipment.
- **Service transfers:** Likely, phone service, postal service, courier services, UPS and FedEx deliveries, etc., will need to be ongoing in both the old and new locations during a lengthy move.
- **Read the owner's manual:** Most new buildings have been designed with flexibility in mind. Have your design professional document the specific features that have been incorporated into the design to make your building adaptable over time. Another good idea is to have your design professional discuss these features with the entire laboratory staff at a brown bag "lunch and learn" presentation. An appreciation of the new building's inherent flexibility may help to keep in the old building the bad habits learned while dealing with its idiosyncrasies.

"Advise people to make absolutely sure the new lab has the power requirements they're expecting. Don't believe [the builders and certifying agents]. Be there when they're testing things."

Dan Rice, DrPH
Former Director, NY State Food Laboratory

Pre-move Precautions to Minimize Post-move Hassles

- **Keep an eye on the new facility:** Don't let packing distract you from important oversight of the new facility. Just a few things (among many) to consider as the new laboratory is under construction: (1) Does the new lab have extra-tall doors and elevators in strategic locations to accommodate large scale instrumentation? (It may not be too late to add them in.) (2) Are electrical plug configurations and voltage/amps adequate to avoid circuit overloads? (3) Do all fans vent in the appropriate direction? (4) Do water softening agents bypass the distillation system for ultra-pure water (to avoid residues in mass spectrometers, etc.)? (5) Do floors with drainage systems slope toward the drain? (6) Have all gas carrier lines been purged of air and checked for leaks? Laboratories have discovered problems in each of these areas in the past.

It is a good idea to have your maintenance team on-site in the new building as plumbing, HVAC, electrical and other key systems are installed. Your staff has intimate knowledge of public health laboratory needs and can both spot any potential trouble spots and gain familiarity with the new building's innards.

- **Commissioning agent:** It is standard practice to have a commissioning agent certify that the new building meets design specifications prior to occupancy. However, most commissioning agents work primarily with office buildings, not complex public health laboratories. Moreover, a public health laboratory may be the most complex facility a state ever constructs, and officials may not realize all of the specialized technology a certifying agent will need to review. Thus, it is important to enlist a commissioning agent or agents with appropriate technical expertise and a clear and comprehensive set of deliverables. It is far less expensive and more efficient to identify problems before the building is certified and occupied.
- **Pay special attention to BSL-3 spaces:** Be sure any BSL-3 construction occurs fairly early in the building process and undergoes extra scrutiny, as BSL-3 suites have been the most common problem-prone areas that have delayed other public health laboratories from fully occupying their new buildings. Consider contracting with a BSL-3 laboratory design expert to review the HVAC and other design elements of the high containment BSL-3 suites before construction even begins. Another recommendation from laboratory directors who have been through a move is to have a third party verification of the BSL-3 suites once construction and commissioning is completed, to ensure that the high-containment lab spaces are indeed safe to occupy and use.
- **Maintain good communications with governmental project overseers:** To the extent possible, make sure no late design changes are made without laboratory input. It has happened that critical elements have been value-engineered out of a laboratory design, only to be put back later—at far greater inconvenience and expense.

- **Plan for increased operating costs:** Assuming the new laboratory is bigger than the old, you will need to plan for increased costs for utilities, phones, computers, etc. If these operating costs are funded through the state legislature, you may need to alert them well in advance of the relevant appropriations cycle. You will also need to plan in extra funding for building safety permitting.
- **Building warranty:** It is not unusual for a building warranty to become active upon state approval of a certificate of substantial completion. If the building only has a standard, one-year warranty, and it is activated several months before occupancy, laboratory staff will not have an opportunity to spend four seasons in the building before the warranty expires. If at all possible, either secure a multi-year warranty or delay warranty activation until after the move is completed and the laboratory is in operation.
- **Review service and maintenance contracts:** Working in one building for many years accustoms you to “business as usual.” Make sure you are able to transfer the terms and conditions of existing service and maintenance contracts to the new location. Alternatively, now might be the time to modify these agreements to better serve your new needs.
- **Maintain an ongoing dialogue with your funding agency:** If the laboratory requires fixes after the move, you may need to request extra funding.
- **Miscellaneous:** About eight months out, begin writing plans for emergency evacuation, security, biosafety, chemical hygiene, emergency response, quality assurance, etc. All of these must be in place before you move in. In addition, plan visits with the fire department to have a rapid entry system installed for emergency access (such as a knox box) and identify your local police department (local, state or university) and local emergency responders. Some laboratory directors have taken local first responders on tours of the new facility to maintain dialogue and assure their awareness of laboratory hazards.

“We estimated that, since we were doubling our space and building in more complex systems, our utility costs would triple. Triple was about right”

David Mills, PhD, HCLD
Director, NM Scientific Laboratory Division

Section 2: On The Move

- **Have a plan for what should move first, what should move last:** One approach laboratories have used is to first move staff and equipment for which the risk and consequences of failure are less great, such as maintenance and mailroom staff and office supplies. It may also be possible to move individual laboratories sequentially, so only one lab is down at a time, and to have equipment moved and re-commissioned overnight.
- **Secure and retain instrument documentation:** Once vendors have re-commissioned instruments, don't let them leave without supplying written documentation indicating that instruments meet factory specifications. You will need this.
- **Points of contact:** Make sure everyone knows whom to contact – on the laboratory staff or with the moving company – for specific issues, such as needing extra boxes, needing to relocate items delivered to the wrong spot or reporting move-related injuries or accidents. Wearing color-coded t-shirts during the move is one option. To maximize efficiency, you may want to have a team working with the movers in the old laboratory and in the new laboratory, with a runner in between.
- **Report problems pronto!** If something goes awry, let the moving company's project manager know immediately – and have a feedback mechanism in place to facilitate this. They can make personnel changes or other adjustments even as the move is ongoing, especially if it takes place over several days or weeks.
- **Yum!** Remember, food is a big motivator. Pizzas, sandwiches and fresh fruit are a good investment on move day.
- **Recycling redux:** As before the move, make plans for recycling and waste management during the move, which is likely to generate a tremendous amount of rubbish, including boxes and crates.
- **Decontamination:** After sections of the old laboratory have been decontaminated, don't forget to remove labels (e.g., rabies, syphilis, HIV, indicating reagents for testing) that might alarm the building's next occupants.
- **Documentation:** For historical, morale-building and publicity reasons, it is a good idea to have a photographic record of the move, including photos of the vacated building and photos of the new building post-move.

An Ounce of Prevention

Laboratories report the benefit of having an electrician and plumber on-site at the new facility during a move to resolve unexpected problems. In addition, if the old lab building has antiquated or few large scale freight elevators, it is a good idea to have an elevator maintenance worker on hand there, as one downed elevator could pose a major disruption.

Section 3: Settling In

After a year spent planning, and then executing, a major laboratory move, you might feel like taking a break. However, there are some things best done immediately after the relocation.

- **Staff welcome packages:** It is a nice idea to provide staff with welcome packages on their first workday in the new facility. Such packages might include laboratory floor plans/ mailing address, basic information about the new phone system, instructions for reporting problems, instructions for returning/recycling packing materials, information about the local area (e.g., recreational trails, lunch spots, etc.) and a lanyard imprinted with the laboratory's name to secure picture IDs and electronic access cards.
- **The ticking clock:** Be diligent about testing all laboratory systems and documenting problems while the new building is still under warranty.
- **Fine-tuning:** Expect to continually fine-tune HVAC and other building systems to achieve optimal operational efficiency. No two buildings are the same even if they all accommodate the eleven core public health laboratory functions. Outdoor air temperature, humidity and occupancy all affect the performance of building systems, and it is important to find the optimal settings for your situation.
- **Energy Savings:** Consider contacting your local power utility to investigate energy conservation programs. Many utilities offer monetary incentives — potentially totaling thousands of dollars/year — to customers willing to reduce power during times of peak usage. These programs typically have an opt-out option for times when reducing power is not practicable for the laboratory.
- **“Lab of the Year”:** Invite your architecture/design firm to submit your new laboratory into the R&D Magazine “Lab of the Year” competition. Not only does this generate good publicity for the laboratory, but the award application — usually completed by the design firm at no cost to the laboratory — documents reams of useful information that might otherwise be forgotten, such as a list of safety features, costs of various building components, etc. The application also requires high-quality photographs (usually taken by the design firm) and mini floor plans. As said one lab director who was nudged into the competition, “It’s the kind of information you don’t think you’re going to need until someone asks you for it. . . . I’m glad I did it.”
- **After-action review:** After you have been in the new building long enough to become familiar with it, invite the architecture/design firm back for an after-action review to discuss what works well and what could have been done differently. This will help to improve the quality of future public health laboratories.
- **Laboratory tours:** As you are settling in, you may want to invite select partners, such as local health department staff, other state agency staff and government leaders to tour the new building (if they haven’t already). Of course, you can also offer colleagues quick, informal tours when they come to the lab for meetings.

Association of Public Health Laboratories

The Association of Public Health Laboratories (APHL) is a national nonprofit dedicated to working with members to strengthen laboratories with a public health mandate. By promoting effective programs and public policy, APHL strives to provide public health laboratories with the resources and infrastructure needed to protect the health of US residents and to prevent and control disease globally.



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