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How to Plan for a Laboratory Move with Cold Transport

Frequently asked questions and expert advice on how to plan for a successful laboratory move

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There's a reason laboratory movers want a minimum of six months to prepare, particularly if it involves cold transport. In some cases, millions of dollars of equipment and irreplaceable samples are in play. Selecting the right lab mover is key, but you also need to know what to ask said lab mover to ensure a successful laboratory move.

A laboratory move: Where to start

The key ingredient to any successful laboratory move with cold transport starts with a

complete inventory of every item and sample to be moved. This step prompts a series of questions, most of which will be asked by the lab manager. Lab managers can greatly contribute to this initial conversation with a working knowledge of what will be asked, what could be asked, and what they should ask.

The questions that matter

First, a question from the mover. If you are shipping any hazardous or Infectious material or if the material is radioactive, this takes it to another level.

Can you transport hazardous or infectious material for Class A or B infectious or radioactive?

A yes means several things to the mover:

1. Special equipment and training for staff
2. Special permits on a local, state and federal level
3. Additional research. This is always required on all hazardous and/or infectious transports. Not all cold transport movers have the training to handle hazardous, infectious, and radioactive samples. Special permits will also be required for transporting those samples and that will probably be on a municipal, state, and federal level. This question needs to be addressed at the very beginning of discussions.

What method do you use when handling samples while transporting them to the truck, while on the truck, and getting them off the truck?

It depends on what the samples are, whether they're in the freezer or in a cryogenic tank, or dry ice shipper. Sometimes samples are shipped on dry ice. Then there’s the plug-in freezer model that’s transported on a generator truck and then cryogenic dewars. Most lab managers prefer being able to take the refrigerators, dewars, and freezers where the sample is currently stored and transport it to the generator truck. This means the sample

doesn’t have to be taken out of the freezer, fridge, or dewar, and can remain in the unit. It’s also the best way to maintain the temperature.

What's the range of temperature needed while your goods are being transported inside the vehicle?

The lab manager determines the temperature, which can be different for every lab. Typically, the temperature range is 5° warmer or colder before an alarm sounds, notifying the crew of an issue. For example, a cooler is set at a temperature of -80° C. Should that temperature rise to -75°C or down to -85°C at any point of the move, an alarm will sound, which alerts the crew that there's an issue to be addressed right away.

What’s the backup plan should the cooler units lose power?

Cold transports during a laboratory move have multiple contingency plans should there be a power failure. In many cases, there’s a plan A, B, and C. Examples include having a power source at the loading dock where coolers can sit for several minutes while the entire loading process takes place. Once in transit, a plan B is a backup generator that switches the power over in case the first generator fails. Plan C would be getting to an acceptable place where you can plug into shore power. Some movers are part of a larger organization and have access to other agents’ warehouses throughout the country.

How can the lab monitor what's going on during a laboratory move?

Most labs have a monitoring device system on every unit that's cellular. If they do not, most laboratory movers will have their own monitoring system. A solid lab mover should also be able to provide a report of the temperature every two minutes over the course of the laboratory move. This is in addition to providing you with a report from the monitoring device.

If a cooler breaks down and needs service during the relocation, who provides that service?

Typically, this is the responsibility of the lab. There is the option to have a rental unit on the truck, in the event of a freezer or fridge failing, but it must be reserved in advance. For older model -80 -20 or 4C units, it’s a good option.

Questions about protocols and logistics for a laboratory move

Much like a newspaper reporter, lab managers should want to know the who, what, when, where, and how of the cold transport. Here’s a short list of some of those questions.

When can the move take place? Can you move at night or on weekends during non-business hours? How many drivers are involved with the laboratory move?

Most lab managers prefer moves to take place outside of regular workweek hours or on the weekends. For out-of-state moves, most lab managers prefer two drivers, so the samples and lab equipment arrive ASAP.

How many lab personnel are needed at each end of the laboratory move?

In most cases, one representative from the lab can be onsite. There should always be an emergency backup contact in case the primary contact becomes unavailable. The backup contact should be kept up to date on all move details.

How is lab equipment wrapped? How is it secured inside the vehicle?

That depends on the equipment. It can either be anti-static bubble wrap or craft bubble wrap. If it's a minus 80° C freezer and we're worried about static electricity, it’s anti-static bubble wrap and using logistic straps to secure it inside the vehicle. If it's a smaller, under-the-counter unit at minus 20°C or a 4° C freezer, we will use craft bubble wrap

and stack units on top of each other with a layer of cardboard in between them so we can maximize the floor space in the truck. Bench equipment from the lab is answered in another release.

How well do you know the end destination?

Any lab mover worth their DNA will thoroughly scout Point A and Point B of the move and meet with lab managers, facilities managers, security, and any other appropriate departments in person—by phone or via virtual meeting—prior to the move date.

Check to make sure you have the appropriate outlets and power at the destination to receive the freezers and refrigerators in the new lab. (Yes, it has happened that when we arrive at a new location and the lab does not have the outlet to plug in the freezer and we have to keep it plugged into the generator until the electrician can provide the appropriate outlet and power requirement). Don't be that lab manager.

Insurance for laboratory moves

Should the lab get insurance? What if something happens to the lab equipment during the move?

In most cases, the laboratory mover's insurance only covers the actual equipment, not the materials or research samples. The lab will usually have their own coverage for that part of the lab relocation.

How much coverage does the mover provide?

Most, but certainly not all, standard mover's liability for equipment is $5 per pound per article for electronics and equipment.

Trip transit or standard cargo coverage?

If the lab wants a higher level of coverage, which sometimes includes acts of God or

mechanical malfunction, then they may want a trip transit policy. A cargo policy could have exclusions that would not have that level of coverage. It depends on the lab and whether they want to spend the money or not. This is why it is important to reach out to your agent early on, to know your limits and coverage.

Additional questions for a laboratory move

What kind of sign-off procedure do you have at each end of the move?

Most lab movers will have an inventory of all the items moved. Each item is checked off as its unloaded. This printout is given to the lab. For a cold storage transport, the mover will do temperature monitoring where the temperature is collected using data internal collectors, or hardwired monitoring devices. The temperature is monitored from origin to destination. The lab should also have to sign a form stating the units and freezers are in working order when plugged in at the other end.

Are there any height restrictions on the loading dock? Is it street level? Is it loading dock level? Are there any restrictions on the elevator?

The lab mover will ask this question as a standard procedure. It's the lab manager's responsibility to understand the requirements and to be able to answer these questions.

What protection do you provide for the facility to make sure there's no damage to our old facility while moving out and our new facility moving in?

Movers should provide building protection that meets the needs of the facility at both origin and destination. If this is not thoroughly researched, it could stop a move out or move in.