Image 1: A lab relocation in progress

The Right Move

Any laboratory move is a challenging upheaval; it can disrupt research and cause loss of samples, potentially costing companies huge sums to repair the damage. However, with the right planning and considerations, every relocation can be a success

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It is an unfortunate fact that the mere idea of a laboratory relocation strikes fear into many research professionals, with the process being regarded as a potentially catastrophic event leading to – at best – a major disruption in research activity, which could cost hundreds of thousands of pounds in operational costs alone. At worst, there are potentially devastating consequences that could be caused through the loss or mishandling of unique research samples.

This fear is not unsubstantiated. The sheer number of relocation providers available means that service inevitably varies a great deal. Additionally, the amount of agencies and subcontractors involved in a lab relocation can often be overpowering, and can significantly increase the chances of a mistake, accident or oversight which could prove disastrous for the research.

Cause for Concern

There are plentiful examples of how incorrect handling or failure to follow necessary regulatory procedures has led to the ruin of expensive ongoing research and caused costly operational downtime. With knowledge of so many 'horror stories', it is only natural for research organisations to be wary of the effects of a lab relocation; organisations should prepare to do their homework in order to establish the best options to take and ensure they have ultimate confidence in the appointed providers.

Potential pitfalls aside, the process of moving a lab is so complex and involves so much coordination to succeed that the very idea of it can prove overwhelming. Without clear planning and leadership, oversights and errors are almost unavoidable.

The ultimate goal when planning any move should not only be the safe and compliant relocation of technical assets and research, but also the minimisation of any downtime created. It is important to bear all aspects of the move in mind before any work begins. The main areas which require concern and attention can be split into three main categories: pre-planning and contingency measures, instrumentation handling and re-qualification, and relocating temperature-controlled materials.

Forward Planning

It is important to start planning from the moment the decision to move is made. The scale and resource-intensive nature of any size of lab move should never be underestimated. Intricate planning and preparation is just as necessary for the relocation of a single item of instrumentation within a facility as it is to relocate an entire research lab from one country to another. The old saying 'fail to prepare, prepare to fail', is very apt in these circumstances. And, of course, with a relocation, failure could ultimately lead to hundreds of thousands of pounds lost on business critical downtime and, potentially – in the worst cases – time to market.

Planning a lab move is not a job for one person alone. News of the move needs to be communicated internally, as well as with all stakeholders, as early as possible. Staff and key stakeholders should be kept informed throughout the process, particularly regarding important dates and decisions, as failure to do so may lead to negative communications or the formation of unhelpful rumours. Decision-makers in the move should be candid in accepting advice and feedback from others in the organisation. Each department is likely to have its own concerns and timescales to consider in the planning process.

Where to Start

Initially, a draft moving plan should be drawn up which, where possible and if required, includes the relocation of large labs or research groups in two separate moves, so that operational continuity can be ensured where needed. Before appointing a moving company, an asset list needs to be constructed to include, wherever possible, the dimensions, weight and value of each instrument or asset to be relocated. This will become a valuable document that will help the chosen moving company to easily identify and gauge all items to be handled during the relocation.

Meeting Requirements

All regulatory and compliance requirements must be addressed by raising an assessment document, which will allow the tracking of the pre- and post-installation qualifications (IQ/OQ/PQ); verification and validation; the

preparation and completion of all documentation necessary for audit trails to maintain regulatory status; and all other regulatory compliance in general that relates to the move. This in itself is likely to be an in-depth and time-consuming process, so starting early and ensuring the document is rigorously and regularly checked by a group of qualified personnel dedicated to this issue will hopefully avoid anything being missed.

As with any project involving an element of risk, it is vital to have contingency strategies in place for any situations which could affect the smooth running of the original plan. It may seem like time which could be better spent elsewhere, but the benefits of an initial brainstorm of potential risks and their consequences, together with preparing a plan of action for each of these, far outweigh facing them for real and unprepared. It is vital that all key personnel, including the moving company, have a copy of the contingency plans and are aware of who to contact in the event of any emergency.

Image 2: Temperature-controlled relocation

Knowledge and Understanding

As well as often having considerable monetary value, instrumentation is generally extremely sensitive. Any slight mishandling could result in major issues, especially if the item has not been packed, protected or handled in line with the original equipment manufacturer's (OEM's) protocols.

It is important to gain a thorough understanding of the chosen provider's industry knowledge, and that as many questions as possible are asked regarding their experience and procedures for moving lab equipment. Vigilance will reap rewards.

Handling Instruments

The most important thing to remember with instrument moves, and an area where less experienced moving companies fail to reduce exposure to business-key downtime for their clients, is that every lab has a unique workflow and uptime sequencing requirement. The relocation of instruments is critical to the move as a whole, and it is essential to understand and identify the last instrument that can be shut down, along with the first one which is needed to start up. Any mistakes here can have significant cost and operational consequences, which can have an ongoing domino effect – so, this planning should be an early priority.

From an early stage in the planning process, work will need to be done with the OEMs to detail the time allocation needed for pre- and post-move decommissioning and re-commissioning of instrumentation, and this will need to be factored into the relocation schedule. The lead times that the OEMs are working to – in terms of booking an engineer to conduct these on-site works – should be confirmed and scheduled as soon as possible.

All instruments will need to be decontaminated prior to being handled by an external moving company. Decontamination certificates will need to be produced and attached to each instrument; such tasks will have to be carried out as purging and 'parking' of moveable and mechanical parts.

An oversight in booking OEMs to decommission instrumentation caused an issue for one of our customers recently. A global pharmaceutical company needed to relocate a large volume of instruments from the UK

to its premises in a number of other countries. We were only consulted late in the process and, from the point of quotation, the firm required the instruments to be moved within two weeks. Unfortunately, the instruments had not yet been decontaminated or decommissioned, and the resulting process added some seven weeks on to the original move programme. This cost the company hundreds of thousands of pounds in lost operational activity.

Terms of Contract

Another important point which could affect the schedule relates to instruments which are under a warranty or service contract. What the instruments' requirements are in a relocation process will need to be checked with each OEM. Sometimes instruments will need to be packed by the OEM themselves, rather than the moving company, to ensure compliance with the terms of the contract or warranty. A specialist lab relocation firm should be able to help with these requirements and, where instruments are not covered by any external service or warranty agreements, they should be able to provide OEM standard packing, handling and moving services.

If instruments are being relocated from within the EU to a non-member state, it will probably be necessary to raise packing lists and invoices that can be used to effect customs clearance procedures on entry to the destination country. A specialist should be used to complete this, one that understands the handling of shipments related to the life sciences industry. Any incorrectly prepared documents could delay customs clearance and have a severely adverse impact upon the move schedule, which could, in turn, incur additional costs from the OEMs completing the post-move IQ/OQ. Mistakes could also lead to significant further expenses in local duties and taxes, as a result of using the wrong harmonisation codes to calculate duties and taxes on arrival into the destination country.

Finally, a useful tip when relocating instruments is to use the opportunity to conduct preventative maintenance, calibration or qualification/validation on those instruments that do not need this as part of any regulatory adherence. Spending a little extra on this could potentially reduce additional costs in lab downtime as all instrumentation is unpacked, positioned and re-commissioned.

Temperature Stability

The relocation of temperature-controlled materials is a sensitive process, and it comes with all kinds of specific pitfalls.

A great deal of thought needs to be given to how temperature stability will be maintained throughout the course of the journey. Whether the move is domestic, within Europe or on an international scale, lab relocation providers should, at the very least, understand and provide all required coolants and packaging.

Best Practice

Temperature-controlled shipping systems for any business-critical research samples or materials – or those which are part of any regulated operations –must be fully validated to comply with or deliver best practice assurance against Good Manufacturing Practice and Good Distribution Practice regulations. For worldwide relocations, the fully validated packaging systems should also be cross-hemisphere tested to ambient temperature challenges, for additional protection.

What is more, the relocation provider should be able to supply information on how the integrity of the product or samples will be maintained during the move. For example, will the firm be able to replenish coolants at any point during the transportation? This is critical to any international movement. Measures must be taken to monitor and record temperatures throughout the moving process, and the data must be logged and reported in a manner which is acceptable to any relevant agencies for audit purposes, or any dossier submissions that may be required by agencies such as the FDA or EMA. Temperature recording systems should be able to be downloaded, read and qualified at the point of delivery.

Without these measures and insurances in place, temperature-controlled specimens could prove worthless. Without the correct procedures and data trail, months' or even years' worth of research can be ruined at untold expense.

In Summary

If carried out correctly, there is nothing to fear about lab relocation – but failure to plan fully and effectively can cause major issues. Take your time, start early, and ask for all the help and support you can get. Remember that any, or all, elements of the move can be outsourced, but care should be taken to validate any external providers before making appointments.

Each lab relocation is unique and comes with its own set of challenges. While there is no specific set of rules to follow in every case, these reminders and points to consider should help ensure a successful move to new premises, where you will be able to successfully continue ongoing research operations.

About the author

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