

3 Steps for Successful Laboratory Decommissioning

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Is your organization relocating, closing, or renovating a lab? Every decommissioning project should follow a certain set of standards to minimize liability and ensure project success. Our expert decommissioning team at Technical Safety Services has identified a best-practices approach that separates the good from the bad and is in accordance with the recommend ANSI/ASSE Z9.11-2016 “Laboratory Decommissioning” standard.

PHASE 1: COMPLETE A LAB ASSESSMENT

The first step is to take an accurate inventory audit of all chemical, biological and radiological materials. Knowing what’s in your facility is a critical step in developing the right project plan and will facilitate the process of collecting the information necessary to guide your team through to a successful decommissioning.

To help you get started, we have provided a series of recommended tips:

Define lease and decommissioning obligations. Unclear lease obligations can lead to unexpected costs during move out phase. Prepare for the discovery of unanticipated waste and contamination. Is there a history of poor housekeeping? Poorly documented work? Obtain as much information as you can to minimize your liability risk. Schedule a hazardous waste pickup to dispose of unused biological, chemical or radiological materials. Conduct staff interviews with key researchers and facility managers that can provide institutional

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knowledge regarding work activities. The more procedural information you have, the better prepared you will be for the following phases.

Identify all stakeholders. Internally, this includes: EH&S, facilities group lead researchers, facilities group and finance. Externally: landlord or property owner. Think about your own organization and start to engage them early in the process to ensure everyone's needs are met.

License and permit management

What permits and licenses are you required to manage? There are often requirements and lead-times in obtaining such documents. Collect and have this data available for regulators to review. Examine decommissioning costs and start thinking about vendors and scoping activities that can accelerate the project. Understand the infrastructure of the facility and as you begin to plan material movements, make sure you are taking the required steps to reduce risks and liability.

PHASE 2: EVALUATION & DECONTAMINATION

To start the decontamination phase, you will need to define the areas that require a deeper assessment. This includes spaces where hazardous materials were used and/or stored. Ensure that you delineate the spaces and establish what equipment requires decontamination prior to being moved.

Here are some areas to pay special attention to:

Benchtops, drawers, shelves, cabinets, and other horizontal spaces Floors and walls – how high up the wall depends on the various type of materials and processes used and waste storage areas, or spill areas like Cold/Clean rooms, Vivarium's, Fume hoods, Plumbing Lab equipment.

Inspectors and regulating officials will look to your team to define the means and methods that will lead to clean conditions of the facility. Ensure procedures are clear and appropriate for the materials being handled. For instance, if you're handling mercury in the lab space, ask your vendor

for the SOP for responding to a mercury spill or contamination event. Additionally, ask the vendor to provide decontamination procedures whether it's fumigation or physical wipe-down work.

PHASE 3: DOCUMENTATION

The documentation that you have collected should tell a story and if done correctly, will leave little room for questions by inspecting authorities. Following the decontamination, clearly document what was done and how the tasks were completed and how it can be independently reproduced.

This document should include:

- Assessment Means and methods for assessment
Cleaning protocols
- Chemicals and hazards that may have been present during operation of the facility
- Acceptable levels of risk
- Where your waste is held before and after pictures
– confirm areas of decontamination
- A statement of acceptable level of risk, signed by a certified industrial hygienist

These are some guiding principles from ANSI/ASSE Z9.11-2016 to assist you in planning, there's a lot more to successfully executing. Lab decontamination is one of the most important steps in successfully completing your lab decommissioning.

For a step by step checklist, reach out to our expert decommissioning team at bcrowley@techsafety.com.