5 Steps to Achieving Animal Biosafety Level (ABSL) 3



Meeting the requirements for ABSL3 is time consuming and exacting.

According to the U.S. Department of Health and Human Services, Public Health Service, an Animal Biosafety Level 3 (ABSL3) facility is designed to house animals infected with potentially lethal disease while reducing or eliminating exposure to veterinarians and animal care workers to potentially hazardous agents.

Whether you are interested in achieving ABSL3 or just want to make your research facilities safer, the five steps below provide a blueprint for designing and operating research facilities to effectively safeguard those facilities and personnel.

STAFFING

An ABSL3 facility requires extensive oversight and leaves little room for error.

PLAN – Plan for enough personnel and time:

- Allocate more time for PPE and ABSL3 duties
- Minimize workplace accidents
- Increase rate of compliance with Standard Operating Procedures

BUILD – Build a team with experienced ABSL3 staff members:

Program will start up faster and run more smoothly

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- Less experienced staff will benefit from the training of experienced staff
- **REWARD** Reward skilled staff by offering career advancement opportunities

TRAINING



Paramount to implementation, operation and management, your team should:

- Identify qualified and experienced trainers
- Determine training implementation requirements
- Develop effective classroom training
- Create mock scenarios
- Include investigator training
- Prepare documentation of training

3 STANDARD OPERATING PROCEDURES

No two ABSL3 programs are alike. Expert understanding is needed for the following aspects:

- Tasks/procedures
- Personnel
- Species
- Risks

It's imperative that there is follow-up testing of the SOPs, investigation of issues and correction of any errors.



Typical SOPs

- Entry Procedures
- Powered Air Purifying Respirators (PAPR)
- Daily Airflow
- Twice Daily Census Counts
- Handling of Agents, including Select Agents
- Species Specific Procedures
- Signage and Movement
- Equipment
- Exiting Procedures
- Emergency Egress Procedures



4 SPECIALIZED EQUIPMENT

The operation of an ABSL3 suite requires the use of specialized equipment, such as:

- BioContainment caging
- Autoclaves with BioSeal and interlocking doors
- Autoclave monitoring devices
- Transportation and staging carts
- Rack covers
- BioSafety cabinets (Class IIB BSC, recommended)
- Isolation rooms or cubicles
- Biological carriers to transport samples
- Communications devices such as computers, 2-way radios, fax machine

5 SECURITY REQUIREMENTS

Security requirements are driven by the category of biological agents to be used. Here are a couple of things to keep in mind:

PERSONNEL CLEARANCE – Poor planning can cause staff shortages and a decline in operational outputs. Create a good way to track where employees are in the clearance process.

- Staff with secret clearance
- Staff not yet given clearance
- Intermittent services such as consultants, maintenance and repair workers

ROOM/CAGE SECURITY:

- Track personnel entering and exiting
- Have sealed cages that can withstand accidental drops
- Install locking mechanism for cages when docked on a rack
- Include padlocks for cage door latches, as needed



For more information, read the full white paper "Effective Strategies to Safeguard Research Facilities and Personnel" from SoBran BioScience.



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