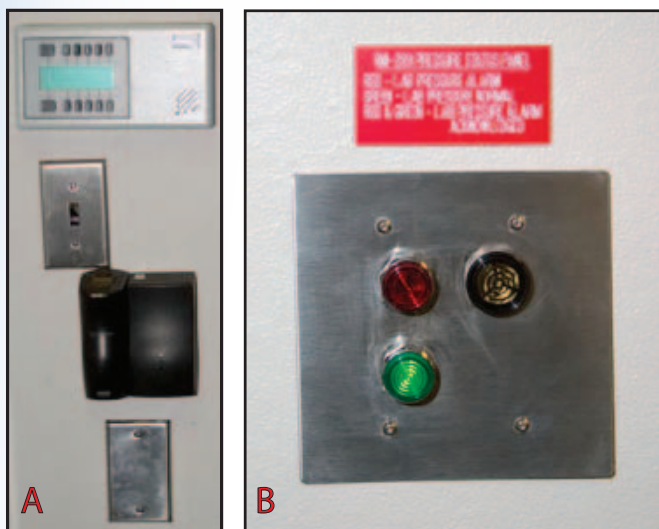
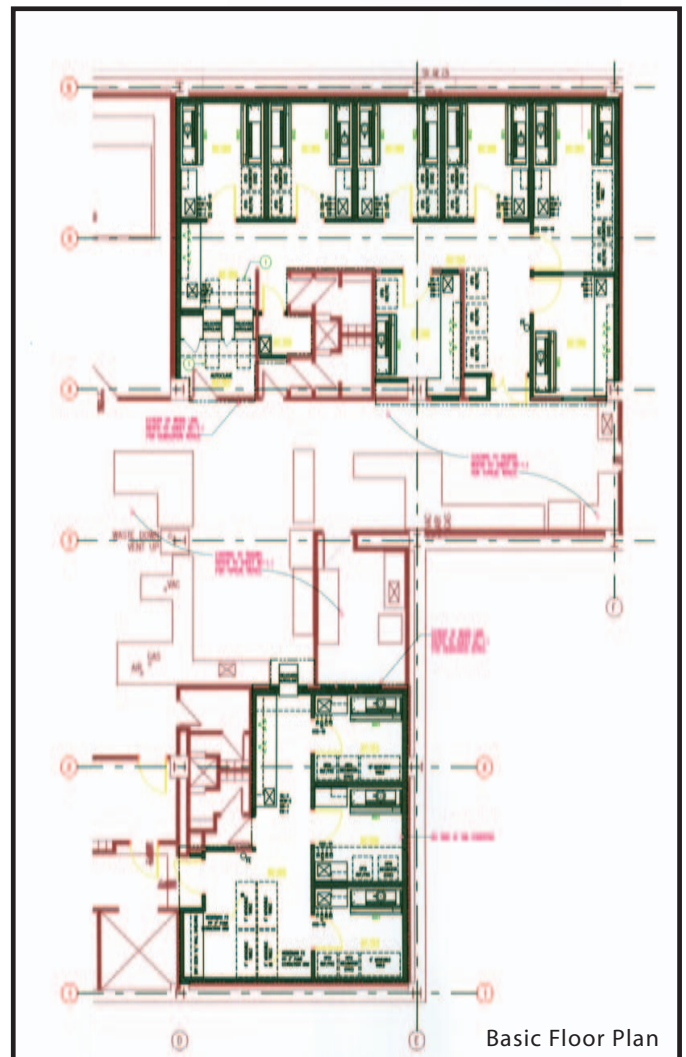




NCTR: BSL-3 BIOCONTAINMENT FACILITY- A RESOURCE FOR BIOTERRORISM RESEARCH

The FDA's National Center for Toxicological Research (NCTR) and the previous occupant of the campus, the Department of the Army's Division of Biological Ordinance, have a long history and extensive experience working with hazardous materials and agents at the Jefferson Laboratories of the FDA. The remote location, effective security posture, and excellent community relations have served the occupants well in these endeavors. The campus occupies approximately 500 acres of land with limited access. The primary campus, which consists of about 30 buildings, is surrounded by security fencing with access controlled by security guards on a 24/7 basis. The NCTR maintains an extensive animal capability, which is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International. Research animals include rodents as well as nonhuman primates. In addition, the NCTR has over 20 years of experience in conducting research in accordance with FDA's Good Laboratory Practices (GLP) regulations.

These factors, along with an internationally recognized microbiology research program, led the FDA to allocate funds for the construction of a biocontain-



A) Proximity and biometric reader
B) Lab pressure status indicator

ment laboratory at the NCTR. This facility was designed to meet Biosafety Level 3 (BSL-3) criteria as outlined in the Center for Disease Control (CDC)/National Institutes of Health's (NIH) Biosafety in Microbiological and Biomedical Laboratories (BMBL) guidance document. In addition, the facility has been designed to meet the Department of Health and Human Services' (DHHS) biosecurity and biosafety requirements for the use of select agents. The facility was designed and constructed to provide the flexibility to meet the needs of multiple investigators in an ever-changing environment.

The second floor of a building that houses the NCTR nonhuman primate colony and animal quarantine facility is entirely devoted to the biocontainment facility. Therefore, access control and separation from other activities on campus are easily accomplished. However, an elevator and stairway provide easy access for authorized employees, supplies, and equipment. Personnel access to the facility is controlled by card and biometric readers. Security guards maintain constant video surveillance using six cameras and a digital recorder.



The NCTR biocontainment facility includes 10 separate BSL-3 labs. Each lab has approximately 120 square feet of floor space and is equipped with a lockable, self-closing door. All of the labs have at least one Class II Type A2 biological safety cabinet (BSC), and these BSCs are “thimble connected” to the facility exhaust system, which is HEPA filtered prior to release to the environment. None of the BSC or room exhaust air is recirculated. Four of the labs have a second BSC to accommodate extra work load. The overall layout of the facility provides three BSL-3 labs separated from the remaining seven BSL-3 labs by ~6,000 square feet of support lab, office, and storage space. The routine access to either of the two BSL-3 lab areas is via a self-closing door to a “staging area” outside the individual labs. However, an alternative access route through a shower/change area is available should a risk assessment warrant such measures.



Pass-through autoclave

Three pass-through autoclaves are available for sterilizing materials or treating hazardous wastes.

Although the current biocontainment facility does not include animal rooms, animal studies involving small numbers of rodents are possible using containment caging systems with cage changing stations.



Containment caging and changing system

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