

# **AN ACT TO PROTECT THE PUBLIC HEALTH AND ENVIRONMENT FROM TOXIC BIOLOGICAL AGENTS**

## **Background**

Boston University will receive federal funding to construct a biological research laboratory that includes BioSafety Level 4 (BSL4) containment, the highest level of containment. BSL4 laboratories are used for the most dangerous toxic biological agents, those that cause fatal human disease by spreading through the air, or with an unknown cause of transmission, such as Ebola and other viral hemorrhagic fevers. Many of the agents could be used in biowarfare and bioterrorism. An agent escaping containment would pose a severe threat to public health and the environment and could cause a public health crisis. Currently, there are only three U.S. BSL4 laboratories; none are in Massachusetts.

## **Need for the legislation**

BSL4 laboratories are inherently dangerous because they experiment with toxic biological agents that could cause a disease outbreak, deaths, and a public health crisis if released into the community. They also might be a target for terrorists who want the agents or to cause community harm. Concern has been heightened by recent revelations that in 2004 three workers were infected with tularemia, a bioterrorism agent, in a BU BSL2 laboratory, BU failed to diagnose the infections as laboratory-acquired tularemia for months and then failed to report the infections to public health officials in a timely manner.

Massachusetts has no comprehensive regulatory program for BSL4 laboratories. The federal government has only self-enforcing guidelines that have been proven unsuccessful. Massachusetts has standards for other inherently dangerous facilities, such as a landfills and power plants, on where they might be located, how the location decision would be made, operations and maintenance requirements, and other appropriate standards to protect the public health and environment.

## **The legislation**

The legislation creates a comprehensive regulatory program for BSL4 laboratories, based on existing state law for hazardous and polluting facilities and federal guidance.

Key points of the legislation are:

- The Department of Environmental Protection (DEP) and Department of Public Health (DPH) adopt regulations for location, construction, operation, maintenance, security, emergencies, permits, reporting, insurance, and transport.
- Laboratory inspections to ensure that the laboratories are operated to protect the public health and the environment.
- Penalties of up to \$25,000 per violation per day for violations of the law and regulations.
- No new agencies are created. Because there will be only a few BSL4 laboratories, there should be a minimal impact on state resources.
- Municipalities may enact laws and regulations in addition to the state law.
- A community oversight board for each laboratory to help ensure transparency of operations and research.
- A moratorium on construction and operation of BSL4 labs until regulations are adopted.
- DEP and DPH will also adopt regulations for lower containment level labs (BSL2 and 3) to protect worker and public health and safety and the environment.

The legislation does not prohibit BSL4 laboratories or limit the research done in such laboratories.